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**FINAL FINDING OF SUITABILITY TO TRANSFER (FOST) # 9 FOR CARVE-
OUT II-F-3 (PUBLIC DOCUMENT)**

01/26/2017

MULTIMEDIA ENVIRONMENTAL COMPLIANCE GROUP

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FINAL

Finding of Suitability to Transfer #9 for Carve-Out II-F-3

**Former Marine Corps Air Station El Toro
Irvine, California**

January 26, 2017

**U.S. Department of the Navy
Base Realignment and Closure
Program Management Office West
33000 Nixie Way
Building 50, Second Floor
San Diego, California 92147**

Prepared under:

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ACRONYMS AND ABBREVIATIONS

§(§)	section(s)
ACM	asbestos-containing material
APHO	aerial photograph feature/anomaly
BRAC	Base Realignment and Closure
CCR	<i>California Code of Regulations</i>
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CO	Carve-Out
DERP	Defense Environmental Restoration Program
DOD	United States Department of Defense
DON	United States Department of the Navy
DTSC	California Environmental Protection Agency/Department of Toxic Substances Control
Earth Tech	Earth Tech, Inc.
FAD	friable, accessible, and damaged
FFA	Federal Facility Agreement
FOST	Finding of Suitability to Transfer
HSC	<i>California Health and Safety Code</i>
IRP	Installation Restoration Program
JP5	jet propulsion fuel, grade 5
LBP	lead-based paint
LBP Act	Federal Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of Public Law 102550), as codified in 42 U.S.C. § 4822
LOC	location of concern
LUC	land-use control
MCAS	Marine Corps Air Station
MSC	Miscellaneous
NFA	no further action
OCHCA	Orange County Health Care Agency
OHM	OHM Remediation Services, Inc.
PCB	polychlorinated biphenyl
PRL	Potential Release Location
RA	remedial action
RACR	Remedial Action Completion Report
RCRA	Resource Conservation and Recovery Act
RORE	RORE, Inc.
RWQCB	California Regional Water Quality Control Board, Santa Ana Region

ACRONYMS AND ABBREVIATIONS (continued)

Station	Former Marine Corps Air Station El Toro
SWMU	Solid Waste Management Unit
U.S.	United States
U.S.C.	<i>United States Code</i>
U.S. EPA	United States Environmental Protection Agency
UST	underground storage tank

1. PURPOSE

The purpose of this Finding of Suitability to Transfer (FOST) #9 is to summarize how the requirements and notifications for hazardous substances, petroleum products, and other regulated material within Carve-Out (CO) II-F-3 at Former Marine Corps Air Station (MCAS) El Toro (Station) have been satisfied by the United States (U.S.) Department of the Navy (DON). Through the Base Realignment and Closure (BRAC) process, the DON transferred, by deed, certain Former MCAS El Toro real property in 2004 (DON 2004) and subsequent years. Other real property known as COs was retained by the DON, pending further investigation and cleanup to support determinations that the property is environmentally suitable for transfer. This FOST was prepared in accordance with the DON (2008) BRAC Program Management Office *Policy for Processing Findings of Suitability to Transfer or Lease* and the *Base Redevelopment and Realignment Manual* (U.S. Department of Defense [DOD] 2006).

2. PROPERTY DESCRIPTION

Former MCAS El Toro is located in central Orange County, California (Figure 1) and was operationally closed in July 1999. The property proposed for transfer under this FOST consists of one CO comprising approximately 12.6 acres. Figure 2 is a Station-wide map that provides the locations of the COs in the area. In 2005, CO II-F-3 was leased to Heritage Fields, Limited Liability Company, under a Lease of Furtherance of Conveyance (DON 2005b).

CO II-F-3 (Figures 2 and 3) is located in the east-central portion of Former MCAS El Toro and contains Buildings 552, 555, and 556 and closed-in-place underground storage tanks (USTs) 547, 548, 549, 550, and 551 (part of former Tank Farm 555), all in the northern portion of the CO. Building 555 was damaged during the 2007 Santiago Fire and only a partial structure remains. Buildings 552, 555, and 556 supported storage, testing, and distribution of jet propulsion fuel, grade 5 (JP5). Building 556, known as the manifold station, included an area encompassing features associated with the MSC JP5 pipeline (including Buildings 552, 555, and 556; the abandoned Norwalk and residual fuel pipelines; and former USTs T-1, 553, and 554), all located within the northern section of former Tank Farm 555 (DON 2009c).

As documented in the *Final Tank Closure Report* (RORE, Inc. [RORE] 2016b), USTs 547, 548, 549, 550, and 551 were backfilled with cellular concrete in February 2016 in accordance with the *Final Tank Closure Activities Work Plan* (RORE 2016a). The Orange County Health Care Agency (OCHCA 2016) concurred that the USTs were appropriately abandoned.

Table 1 presents a summary of the existing buildings, structures, and USTs within CO II-F-3. Paved and unpaved roads cover a portion of the northern area of the property. The remainder of the property consists of open space.

3. REGULATORY COORDINATION

In February 1990, Former MCAS El Toro was listed on the U.S. Environmental Protection Agency (U.S. EPA) National Priorities List under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Defense Environmental Restoration Program (DERP), codified as 10 *United States Code* (U.S.C.) Sections (§§) 2701–2709, gave the DOD Environmental Restoration Program a statutory basis. The DON implements the DERP subject to, and in a manner consistent with, CERCLA and its regulations. On November 19, 2013, the U.S. EPA indicated its intent to complete a direct final National Priorities List delisting of approximately 1,900 of the 4,712 acres of Former MCAS El Toro (excluding the CO addressed in this FOST) (*Federal Register*, Volume 78, Number 223). The partial delisting became effective on January 21, 2014.

In October 1990, U.S. EPA Region 9, State of California Department of Health Services (now referred to as California Environmental Protection Agency/Department of Toxic Substances Control [DTSC]), California Regional Water Quality Control Board, Santa Ana Region (RWQCB), and the DON signed a Federal Facility Agreement (FFA) (DON 1990). The U.S. EPA, DTSC, and RWQCB were notified of the initiation of this FOST and were issued copies of the draft for review. As stakeholders, the City of Irvine (Orange County Great Park Corporation) and FivePoint Communities, Inc. (Heritage Fields El Toro, Limited Liability Company) were also provided with opportunities to comment; regulatory agency and stakeholder comments on this FOST, along with the DON's responses, are provided in Attachment 1. There was only one unresolved comment (Attachment 2).

3.1 RESOURCE CONSERVATION AND RECOVERY ACT PART B PERMIT AND SUBTITLE C CORRECTIVE ACTION

This FOST reviews sites that were evaluated and addressed under the DON's CERCLA and DERP authority as well as sites addressed under the corrective action requirements of Resource Conservation and Recovery Act (RCRA) Subtitle C (for solid waste management units [SWMUs]), RCRA Subtitle I (for USTs), and associated state laws and regulations administered by the U.S. EPA, the State of California, and the County of Orange. These corrective action authorities are similar to CERCLA in that they require response/corrective action (cleanup) where necessary to ensure adequate protection of human health and the environment – see CERCLA § 121(d), *California Health and Safety Code* (HSC) § 25296.10(b), Title 23 *California Code of Regulations* (CCR) §§ 2720 (definition of “corrective action”) and 2725(c) (soil and water investigation phase, corrective action plan), and Title 22 CCR § 66264.101(a). A decision that no action is required to protect human health and the environment, made by the DON or an environmental regulator under the laws and regulations listed above, also supports a DON determination under CERCLA § 120(h) that all remedial action (RA) necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken.

Former MCAS El Toro was subject to a RCRA Part B permit that was issued in June 1993 and expired on August 18, 2003. The permit addressed one regulated unit (Building 673-T3) as well as RCRA corrective action requirements for SWMUs. Building 673-T3 and Former MCAS El Toro SWMUs were not located within CO II-F-3. The RCRA permit incorporated the FFA (referred to as the “Agreement”) for MCAS El Toro by reference and provided, in the relevant part (Subsection V.A.1 of the permit) that:

The activities required by the Agreement are intended to satisfy the corrective action requirements of RCRA Section 3004(u) and (v), and 42 U.S.C. Section 6924(u) and (v). The Agreement and any schedules contained therein are hereby incorporated by reference as the schedule for completing corrective action at the facility...

The FFA itself specifically requires that RCRA corrective action requirements be addressed in the FFA process – see Subsections 1.1(b), 1.2(e), 3.1, 17.1, 17.2, 17.3, and 19 of the FFA (DON 1990).

The rationale for integrating CERCLA and RCRA corrective action requirements in this manner is straightforward. The cleanup standard for CERCLA is set forth in § 121 (Cleanup Standards), which states [in the relevant part of § 121(b)(1); 42 U.S.C. § 9621(b)(1)] that: “The President shall select a remedial action that is protective of human health and the environment...” The cleanup standard for RCRA Subtitle C corrective action in the State of California, as set forth in Title 22 CCR § 66264.101(a), provides that:

The owner or operator of a facility seeking a permit for the transfer, treatment, storage, or disposal of hazardous waste shall institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid or

hazardous waste management unit at the facility, regardless of the time at which waste was placed in such unit.

Also see HSC §§ 25187 and 25200.10(b).

In a letter dated March 8, 1996, DTSC (1996) concurred with no further action (NFA) for Building 673-T3 and stated that the permit was terminated on the basis of the closure report that was submitted on behalf of the DON (OHM Remediation Services, Inc. [OHM] 1996). The DON continues to complete all RCRA Part B permit corrective actions for the SWMUs under the FFA executed in 1990. As noted above, neither Building 673-T3 nor any of the SWMUs are located on CO II-F-3.

DTSC has not made a RCRA Corrective Action Complete determination for the property associated with this FOST. It is the DON's understanding that, if requested, DTSC will issue a letter to the transferee(s) clarifying corrective action obligations for property associated with this FOST. DTSC has been provided copies of this FOST for review; agency correspondence concurring that the subject property is suitable for transfer in a manner that is protective of human health and the environment is provided in Attachment 3.

3.2 RESOURCE CONSERVATION AND RECOVERY ACT SUBTITLE I CORRECTIVE ACTION

OCHCA and the RWQCB administer the UST corrective action program at Former MCAS El Toro pursuant to RCRA Subtitle I and HSC §§ 25280–25299.8. The authority of the OCHCA and RWQCB to require corrective action at UST sites is set forth in Title 23 CCR, Division 3, Chapter 16.

Title 23 CCR § 2720 specifically defines “corrective action” as:

any activity necessary to investigate and analyze the effects of an unauthorized release; propose a cost-effective plan to adequately protect human health, safety, and the environment and to restore or protect current and potential beneficial uses of water; and implement and evaluate the effectiveness of the activity(ies)...

Furthermore, Title 23 CCR § 2725(c) sets forth requirements for corrective action plans prepared by responsible parties and states that:

The regulatory agency shall concur with the corrective action plan after determining that implementation of the plan will adequately protect human health, safety, and the environment and will restore and protect current or potential beneficial uses of water.

NFA letters issued by the RWQCB and OCHCA are in accordance with Title 23 CCR § 2721(e), which provides that: “Upon completion of required corrective action, the regulatory agency shall inform the responsible party in writing that no further work is required at that time, based on available information.”

HSC § 25296.10(a) provides that the State Water Resources Control Board: “shall develop corrective action requirements for health hazards and protection of the environment based on the severity of the health hazards and the other factors listed in subdivision (b)...” HSC § 25296.10(b) provides that: “Any corrective action conducted pursuant to this chapter shall ensure protection of human health, safety, and the environment.”

The corrective action cleanup standards for USTs implemented by the RWQCB and OCHCA are codified in HSC § 25296.10(b), Title 23 CCR §§ 2720 (definition of “corrective action”) and 2725(c) (soil and water investigation phase, corrective action plan).

3.3 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

CERCLA response actions are initiated at environmental sites where CERCLA hazardous substances have been or may have been released. Under Executive Order 12580, the DON is the lead agency responsible for CERCLA cleanups at DON properties. The property addressed in this FOST does not include any Installation Restoration Program (IRP) sites.

4. SUMMARY OF ENVIRONMENTAL REQUIREMENTS AND NOTIFICATIONS

This section summarizes the environmental requirements and notifications as they relate to CERCLA and RCRA, petroleum products and derivatives, asbestos-containing material (ACM), lead-based paint (LBP), pesticides, polychlorinated biphenyls (PCBs), and other regulated materials. Pursuant to 40 *Code of Federal Regulations* Parts 302.4 and 373, and in the form and manner prescribed by CERCLA [42 U.S.C. § 9620(h)], the deed(s) for the CERCLA-impacted CO will contain, to the extent that such information is available based on a complete search of agency files, a notification of hazardous substances stored for one year or more or known to be released or disposed of in amounts greater than or equal to their reportable quantities within the CO. This notice is provided in Attachment 4, Hazardous Substances Notification Table for CO II-F-3. Attachment 5, Petroleum Products Notification Table for CO II-F-3, lists the locations of concern (LOCs) associated with the storage of petroleum products.

Table 2 identifies the environmental requirements and notifications applicable to the CO. Based on an evaluation of the DTSC-approved *Final Environmental Baseline Survey* (DTSC 2003; Earth Tech, Inc. [Earth Tech] 2003), hazardous substances, petroleum products, storage tanks, ACM, LBP, and PCBs were present or have occurred within the CO.

The *Final Environmental Baseline Survey* (Earth Tech 2003) identified several facilities/features as locations requiring further evaluation, referred to as Potential Release Locations (PRLs). Subsequently, the FFA signatories agreed that the DON would prepare investigation plans, perform field evaluations, and provide conclusions as to whether a PRL needed to be included in a specific regulatory cleanup program or whether NFA was warranted. The property addressed in this FOST does not include any PRLs.

Table 3 identifies LOCs within CO II-F-3. LOCs are areas where (1) a release is suspected to have occurred, (2) a documented release has occurred, or (3) based on the types of activities that occurred in the area, there was a potential for a release. There are 11 LOCs within CO II-F-3, 5 of which are the closed USTs within former Tank Farm 555, along with 3 other removed and closed USTs, closed JP5 pipelines, a former PCB transformer, and an area of extraction and filling. The types of LOCs present within CO II-F-3 include hazardous substance sites, an aerial photograph feature/anomaly (APHO) site, USTs, PCB-containing transformers and equipment, and a miscellaneous (MSC) petroleum site. The LOCs within CO II-F-3 have received regulatory agency concurrence for NFA. NFA designations are based on the findings of evaluations or cleanup actions, and LOCs with NFA designations are suitable for transfer as long as the applicable notifications and restrictions outlined in Sections 4 and 5, respectively, are adhered to. This condition includes LOCs that meet the federal and state definitions of SWMUs and received NFA designations, either because no corrective action was required to provide adequate protection of human health and the environment, or the required corrective action has been completed. There are no SWMUs located on CO II-F-3.

4.1 CERCLA/RCRA SITES

There are no CERCLA/RCRA sites within CO II-F-3.

4.2 PETROLEUM PRODUCTS AND DERIVATIVES

The corrective action cleanup standards for petroleum USTs implemented by the RWQCB and OCHCA are codified in HSC § 25296.10(b) and Title 23 CCR §§ 2720 (definition of “corrective action”) and 2725(c) (soil and water investigation phase, corrective action plan). Closure actions for petroleum-related LOCs are detailed in Table 3. Attachment 5, Petroleum Products Notification Table for CO II-F-3, lists the LOCs associated with the storage, release, or disposal of petroleum products.

All petroleum sites identified in this FOST containing residual petroleum or its derivatives have been closed with the concurrence of the applicable regulatory agencies. The deed shall contain a clause wherein the transferee is notified that all known sites within the FOST parcel containing solely petroleum or petroleum derivatives have been closed with the concurrence of the applicable regulatory agencies. The clause in the deed will require the transferee to assume all obligations, liabilities, costs, and burdens with respect to the development, improvement, use, or maintenance of the petroleum sites identified in this FOST with respect to any act or failure to act by the transferee that causes or exacerbates the release or threat of release of residual petroleum from such sites.

4.2.1 Underground Storage Tanks

Former USTs 547 through 551 (Figure 3), located within former Tank Farm 555, were constructed in 1953 to store jet propulsion fuel. The nominal 567,000-gallon-capacity USTs were supplied by the former 8-inch-diameter Defense Fuel Support Point Norwalk pipeline (Figure 3; Groundwater Technology, Inc. 2003; Earth Tech 2003) and were part of the Station’s jet fuel storage and distribution system. Fuel from the USTs was supplied to the former airfield via 8- and 12-inch-diameter pipelines that have been closed in place (see Section 4.2.2 and Figure 3). An 8-inch-diameter pipeline conveyed fuel between Building 556 and former USTs 553 and 554; this pipeline was closed in place (Figure 3; DON 1997). Table 3 and Attachment 5 contain more details about the size and contents of the USTs.

Use of the USTs resulted in localized petroleum hydrocarbon impacts to soil and groundwater, primarily from the practice of disposal of excess fuel within unlined dry wells adjacent to the tanks. Soil investigations and remediation ensued, resulting in the removal and proper offsite disposal of approximately 9,360 tons of impacted soil (DON 2010). Subsequently, the RWQCB (2011a) concurred with the DON’s NFA request for the vadose zone. Petroleum impacts to groundwater were addressed under a multiyear monitored natural attenuation program (DON 2009a), and the RWQCB (2015) concurred with the DON’s NFA request for groundwater (Enviro Compliance Solutions, Inc. 2015), contingent on the regulatory closure of the USTs. As summarized in Table 3, residual petroleum hydrocarbons remain in soil and groundwater at former Tank Farm 555. The eight remaining groundwater monitoring wells at the site were destroyed on January 27 and 28, 2016 (Enviro Compliance Solutions, Inc. 2016), and the USTs were closed in place in February 2016 by filling the tanks with cellular concrete (RORE 2016b) in accordance with a regulatory-approved *Final Tank Closure Activities Work Plan*. OCHCA (2016) concurred with the DON’s request for UST closure in July 2016, and the DON (2016) subsequently requested that the RWQCB finalize its contingent groundwater closure concurrence. Formal groundwater closure was provided by RWQCB (2017) on January 5, 2017.

USTs 553 and 554, both 10,000 gallons in capacity and used to respectively store gasoline and kerosene, were removed and received site closure concurrence (RWQCB 1997). UST T-1, 2,000 gallons in capacity and used to store waste jet fuel, was removed and received site closure concurrence (OCHCA 2000). These three USTs are shown on Figure 3, and their removal and closure details are presented in Table 3.

4.2.2 Miscellaneous Site

The MSC JP5 pipelines (including the Quarry Road segment within CO II-F-3 and a portion of Segment 3) received site closure concurrence (RWQCB 2011b). The pipelines consisted of two steel pipes, 8 and 12 inches in diameter. The portions of the pipelines within CO II-F-3 (but outside of the former Tank Farm 555 area; Figure 3) were abandoned in place in 2000 by filling them with cement grout (DON 2005a). The portions of the pipelines within the former Tank Farm 555 area were removed in 2000 (DON 2010). The portions of the closed MSC JP5 pipelines within CO II-F-3 are shown on Figure 3.

4.2.3 Aerial Photograph Feature/Anomaly

APHO 101, located within the former Tank Farm 555 area between USTs 547 and 549 (Figure 3), consisted of areas of extraction and filling. APHO 101 was identified on a 1967 photograph (Earth Tech 2003). A summary report, which presented the results of a historical record search, and supplemental information indicated that the extraction and fill activities seen in the 1967 aerial photograph were the result of the construction of former Tank Farm 555 and the access road; construction and grading plans show that fill material was placed to form the current ground surface (DTSC 2005). The summary report recommended NFA and regulatory concurrence for NFA was received (DTSC 2005; RWQCB 2003).

4.2.4 Other Facilities

The former 8-inch-diameter, 29.5-mile-long Defense Fuel Support Point Norwalk pipeline crossed the northern part of CO II-F-3 (Figure 3) where it entered former Tank Farm 555 (Earth Tech 2003; Groundwater Technology, Inc. 2003). The pipeline was not an asset of Former MCAS El Toro (United States Marine Corps 1999). The pipeline was closed in June 1999 when the entire length was pigged (cleaned), water-washed, and filled with nitrogen gas and sealed (Earth Tech 2003). Approximately 3,000 feet of the pipeline northwest of Quarry Road were removed in November 2006 (DON 2010).

4.3 ASBESTOS-CONTAINING MATERIAL

It is DOD policy to manage ACM in a manner protective of human health and the environment and to comply with all applicable federal, state, and local laws and regulations governing ACM hazards (DOD 1994). Therefore, unless it is determined by a competent authority that ACM on the property poses a threat to human health at the time of transfer, all property containing ACM will be conveyed, leased, or otherwise disposed of “as is” through the BRAC process. If ACM in a building does pose a threat to human health or the environment, occupation of the building will be prohibited until the ACM is abated or the building is demolished by a transferee. Remediation of ACM is not required in buildings that are scheduled for demolition by the transferee.

Buildings require a survey if they have never been surveyed for ACM; non-friable, accessible, and damaged (non-FAD) ACM was detected in a survey that was conducted prior to but not since 1997 (i.e., not within the last three years of Station operation). Some buildings were surveyed for FAD ACM only and, therefore, the presence of non-FAD ACM is unknown.

There are a total of three non-residential buildings and five USTs within CO II-F-3, four of which have been partially or completely surveyed for ACM (Buildings 555 and 556 and USTs 549 and 551). In addition, the outsides of exposed UST vaults and miscellaneous construction debris have been surveyed for ACM (RORE 2016a,b). Hazardous materials in the form of ACM have been found and are otherwise presumed to exist in these buildings and structures. Information on the existence, extent, and condition of ACM in the buildings, USTs, UST vaults, and construction debris that were surveyed is provided in Table 4. On November 2 and 3, 2015, loose exposed ACM at UST 549 and on the vault walls was removed, and remaining exposed ACM was stabilized as needed by a licensed abatement contractor in accordance with South Coast Air Quality Management District regulatory requirements (RORE 2016a,b). A third party

inspected the finished work and certified that no loose ACM remained (RORE 2016a,b). In addition, based on standard construction practices of the time, there is the potential for ACM to be associated with any underground fuel, hot water, and other pipelines at Former MCAS El Toro that were not removed during the DON's extensive remedial activities. A notification will be included in the deed regarding the potential presence of ACM within CO II-F-3 in accordance with applicable law. See Section 5.3 for restrictions.

4.4 LEAD-BASED PAINT

LBP hazards are defined in the Federal Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of Public Law 102550), as codified in 42 U.S.C. § 4822 (LBP Act), as "any condition that causes exposure to lead...that would result in adverse health effects." The LBP Act provides for regulation of hazard abatement from LBP. Hazards include lead-contaminated dust and soil for target housing only. Target housing is defined in the LBP Act as any housing constructed before 1978, except any housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing for the elderly or persons with disabilities) or any zero-bedroom dwelling. Under the LBP Act, the DON is required to disclose the presence of known LBP and/or LBP hazards prior to the sale or transfer of property to a non-federal entity.

Notification of potential LBP at buildings and structures is based on the age of construction (i.e., constructed before the Consumer Product Safety Commission's 1978 ban on LBP for residential use). CO II-F-3 contains buildings and structures that were constructed prior to 1978 and, therefore, LBP may be present. This in turn creates the possibility that, through the action of normal weathering and maintenance, there may be lead from LBP in the soil surrounding these buildings and structures. Construction dates for each of the buildings and structures in CO II-F-3 are summarized in Table 1.

A deed notification will be provided that buildings at Former MCAS El Toro that were constructed prior to 1978 may contain LBP, and demolition of non-residential buildings and structures constructed prior to 1978 creates the possibility of lead being found in the soil as a result of such activities. With respect to any such non-residential buildings and structures that the transferee intends to repair or demolish and then redevelop the land for residential use after transfer, the transferee may, under applicable law or regulation, be required by DTSC or other regulatory agencies to evaluate the soil adjacent to such non-residential buildings and structures for lead hazards in soil and abate any such hazards that may be present after demolition of such non-residential buildings and structures and prior to occupancy of any newly constructed residential buildings.

There are no residential buildings or structures associated with this FOST. No LBP surveys were conducted for buildings and structures associated with this FOST. No additional notices are required with respect to LBP. See Section 5.4 for restrictions.

4.5 POLYCHLORINATED BIPHENYLS

The DON has investigated potential releases of PCBs into the environment pursuant to its CERCLA authority and did not identify any such releases that required CERCLA RA. Therefore, all necessary RA to address PCB releases has been taken. Transformer PCB T122 was within CO II-F-3 (Figure 3). This transformer was replaced with a non-PCB-bearing transformer, and no evidence of a release has been identified at this transformer location (DTSC 2003; U.S. EPA 2003). In addition, a non-transformer PCB item (described as a "motor control center") with a reported PCB concentration of 6.9 parts per million was associated with the former tank vault at UST 547 (Figure 3, within the tank footprint). NFA concurrence was received for this non-transformer PCB location (DTSC 2003; U.S. EPA 2003). There is no known PCB-containing electrical equipment currently located in CO II-F-3.

Ballasts in fluorescent light fixtures made prior to 1979 may contain sealed PCB-containing components. A comprehensive survey at the Station for PCB-containing light ballasts has not been conducted; however, it is assumed that buildings, structures, and facilities constructed prior to 1979 have PCBs in the ballasts of older light fixtures. As such, the deed will contain a notice as to the potential presence of PCB-containing ballasts in light fixtures present in the remaining buildings within CO II-F-3. It should be noted that some Station buildings that were constructed prior to 1979 have had interior renovations and new light fixtures installed that do not contain PCBs.

Fluorescent light ballasts manufactured before 1979 often have PCB-containing capacitors, but unless large quantities of such ballasts are removed, no specific action is required. According to DON guidance, when large quantities need to be disposed of, the ballasts should be handled as regulated PCB equipment (DON 1989). Fluorescent light ballasts that contain PCBs have approximately 1.0 to 1.5 ounces of PCB-laden fluid in each capacitor. This amount equates to approximately 3.1 to 4.7 pounds of PCB-laden fluid for every 50 capacitors. The transferee may, under applicable laws and regulations, be required by DTSC or other regulatory agencies to address disposal of light fixtures if they are removed following transfer of the property.

4.6 PESTICIDES

The deed will contain a notification, and the transferee will acknowledge, that registered pesticides have been applied to the property conveyed herein and may continue to be present thereon. The deed will contain an acknowledgment from the transferee that where a pesticide was applied by the DON or at the DON's direction, the pesticide was applied in accordance with its intended purpose and consistently with the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 136, et seq.) and other applicable laws and regulations. It is the Navy's position that it shall have no obligation under the covenants provided pursuant to Section 120(h)(3)(A)(ii) of CERCLA, Title 42 U.S.C. § 9620(h)(3)(A)(ii), for the remediation of legally applied pesticides.

5. SUMMARY OF RESTRICTIONS

This section summarizes restrictions related to CERCLA/RCRA sites, petroleum products and derivatives, ACM, and/or LBP. These restrictions ensure that post-transfer use of CO II-F-3 is consistent with protection of human health and the environment.

5.1 CERCLA/RCRA SITES

There are no CERCLA/RCRA sites within CO II-F-3.

5.2 PETROLEUM PRODUCTS AND DERIVATIVES

USTs 547, 548, 549, 550, and 551 within former Tank Farm 555 were part of a petroleum corrective action. As a result of completed corrective action activities, the RWQCB has concurred with NFA for soil and groundwater related to the petroleum corrective action at former Tank Farm 555 (RWQCB 2011a; 2015; 2017). On September 29, 2015, the RWQCB (2015) concurred with discontinuing groundwater monitoring because the groundwater cleanup goals have been achieved. Monitoring well destruction was completed on January 27 and 28, 2016, and UST closure by backfilling was completed in February 2016. Regulatory closure for former Tank Farm 555 was granted in July 2016 (OCHCA 2016), and the RWQCB (2017) subsequently provided final groundwater closure in January 2017. Therefore, LUCs are not required for former Tank Farm 555 within CO II-F-3.

Three other USTs that were located adjacent to former Tank Farm 555 have been removed. USTs 553, 554, and T-1 have all received site closure concurrence (RWQCB 1997; OCHCA 2000). Therefore, LUCs are not required for USTs 553, 554, and T-1.

5.3 ASBESTOS-CONTAINING MATERIAL

The deed will contain a restriction prohibiting occupancy and use of buildings and structures, or portions thereof, containing known asbestos hazards before abatement of such hazards. In connection with its use and occupancy of the property, including, but not limited to, demolition of buildings, structures, and facilities, the transferee will comply with all applicable federal, state, and local laws relating to identification and evaluation of potential asbestos and ACM hazards prior to residential occupancy and use of buildings and structures located on the property.

The transferee will be required to comply with the specific restrictions listed below for ACM that has been identified within CO II-F-3. Information on the existence, extent, and condition of ACM at buildings and structures within CO II-F-3 is provided in Table 4.

Except for short-term tours and emergency maintenance, access, use, or occupancy is prohibited pending either (1) completion of ACM surveys and any necessary ACM abatement by the transferee, or (2) demolition by the transferee in accordance with all applicable local, state, and federal laws and other requirements relating to asbestos or ACM. Pending completion of abatement or demolition, the transferee shall manage the ACM in accordance with all such applicable local, state, and federal laws and requirements. This restriction is applicable to all buildings and structures located within CO II-F-3 (Table 1). There is the potential for ACM to be associated with any underground fuel, hot water, or other pipelines within CO II-F-3 that were not removed during the DON's extensive remedial activities. The transferee will comply with all applicable federal, state, and local laws relating to asbestos and ACM in the event that it removes or otherwise disturbs the underground fuel, hot water, or other pipelines within CO II-F-3.

5.4 LEAD-BASED PAINT

The deed will contain a restriction that requires the transferee, its successors and assigns, to manage LBP and LBP hazards in accordance with applicable federal, state, and local laws and other requirements relating to LBP and LBP hazards, in its use and occupancy of the property, including but not limited to, demolition of buildings, structures, and facilities, and identification and evaluation of LBP hazards. In addition, child-occupied facilities (i.e., a building, or a portion of a building, constructed prior to 1978 and visited regularly by the same child, such as schools, child care facilities, and hospitals), residential occupancy, and use of the nonresidential buildings and structures located within CO II-F-3 (Table 1), or portions thereof, will be prohibited prior to identification and/or evaluation of any LBP hazards and abatement of any hazards identified as required.

6. ADJACENT PROPERTIES

CO II-F-3 is primarily adjoined by property previously transferred based upon previous FOSTs. Because these adjoining land areas were found suitable for transfer, they pose no negative effects on CO II-F-3. A review of all the available information, including records from the State Water Resource Control Board's GeoTracker and DTSC's EnviroStor websites, indicates no known sources of contamination on the adjoining properties, with the exception of the IRP Site 17 landfill, which has a remedy in place with ongoing long-term monitoring.

CO II-F-3 is surrounded by the following properties, which are described further below, and shown on Figure 4:

- Transfer Parcel II-A, located to the northwest (including portions of Quarry Road);
- a narrow extension of CO II-Q adjacent to the western corner of the CO II-F-3 boundary and extending to the west coincident with the MSC JP5 pipeline;

- CO II-F-1 located adjacent to the southwestern CO II-F-3 boundary and extending to the southeast; and
- a federally owned parcel located to the southeast and north.

Transfer Parcel II-A was documented in FOST #1 (DON 2004). Within Transfer Parcel II-A, there are currently no environmental LOCs located adjacent to CO II-F-3. The former Wherry Housing area of Transfer Parcel II-A contained four transformer PCB sites (PCB T80, T99, T100, and T101), one of which was replaced with a non-PCB transformer and three of which were removed. No PCB releases were identified (DON 2004).

COs II-Q and II-F-1 were documented in FOST #7 (DON 2012) and subsequently transferred. The only environmental LOC in the extension of II-Q that is adjacent to CO II-F-3 is a portion of the MSC JP5 pipeline. This pipeline extends onto CO II-F-3, but is inactive and has been abandoned in place, and NFA concurrence was received from the RWQCB on June 17, 2011 (RWQCB 2011b). CO II-F-1 has no environmental LOCs.

The federally owned parcel was initially transferred in 2001 (Earth Tech 2003). Environmental LOCs located near CO II-F-3 are IRP Site 17 (Communication Station Landfill), APHO 44 (also known as Science Applications International Corporation 288; disturbed ground, mounded material, and probable trench), and APHO 105 (disturbed ground and mounded material).

APHO 44 was delineated as an oval-shaped area of approximately 2 acres, although a larger area covering approximately 9 acres in and around the APHO was investigated in 2000 as part of waste consolidation for the IRP Site 17 landfill closure (DON 2000a). Part of this investigation area was within CO II-F-3, and part was west of IRP Site 17 on the adjacent federally owned parcel. This investigation included a geophysical survey to search for potential buried debris. The geophysical survey identified scattered surface and subsurface debris within the APHO 44 area, and an additional approximately 1-acre area of buried metallic debris east of APHO 44; no trenches or large areas of fill were identified (DON 2000a).

Waste materials at APHOs 44 and 105 were removed and placed in the IRP Site 17 landfill (Earth Tech 2009a), which is located approximately 600 feet (at its closest point) east of CO II-F-3. The *Final Remedial Action Completion Report, Installation Restoration Program Sites 2 and 17* (Earth Tech 2009a), which documents completion of remedial activities in accordance with the *Final Interim Record of Decision* (DON 2000b) and subsequent *Final Explanation of Significant Differences* (DON 2009b), was concurred upon by the regulatory agencies (DTSC 2009; U.S. EPA 2008; RWQCB 2008). Postclosure monitoring is ongoing at IRP Site 17 in accordance with the *Final Operation and Maintenance Plan* (Earth Tech 2009b). The buffer zone (area requiring institutional controls) around the IRP Site 17 landfill of 100 feet (DON 2011a; RWQCB 2011c) is sufficient for protecting CO II-F-3 (DTSC 2010; U.S. EPA 2011; RWQCB 2010).

The former Defense Fuel Support Point Norwalk pipeline crossed through Parcel II-A and the federally owned parcel (Figure 4). As stated in Section 4.2.4, this pipeline was closed in 1999 (Earth Tech 2003).

7. COVENANTS

The deed(s) for transfer of CO II-F-3 on which “any hazardous substance was stored for one year or more, [or] known to have been released, or disposed...” as a result of former activities conducted by the U.S. will include a covenant made pursuant to CERCLA §§ 120(h)(3)(A)(ii) and (B). The covenant will warrant that “all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified pursuant to CERCLA § 120(h)(3)(A)(i)(I) remaining on the property has been taken before the date of transfer” and that “any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States.” This covenant will not apply to

any RA required on CO II-F-3 that is the result of an act or omission of the transferee that causes a new release of hazardous substances.

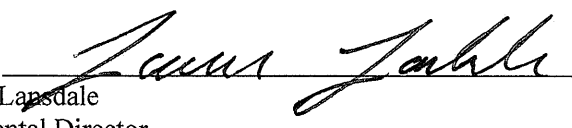
8. ACCESS CLAUSE

Pursuant to CERCLA § 120(h)(3)(A)(iii) [42 U.S.C. § 9620(h)(3)(A)(iii)] and DOD (2007) Instruction No. 4165.72, any deed(s) transferring CO II-F-3 will contain a clause retaining and reserving to the U.S. (DON and U.S. EPA) and State of California (DTSC and RWQCB) a perpetual and assignable easement and right of access on, over, and through the FOST property to enter upon CO II-F-3 in any case in which remedial or corrective action is ongoing or found to be necessary on the part of the U.S. after the date of such transfer, without regard to whether such remedial or corrective action is on CO II-F-3 or on adjoining or nearby lands. In addition, the deed(s) will provide for a right of access for the U.S. to traverse property owned by the transferee to gain access to property still owned by the U.S.

9. FINDING OF SUITABILITY TO TRANSFER

Based on the information contained in this FOST and the notices, restrictions, and covenants that will be contained in the deed(s), CO II-F-3 at Former MCAS El Toro is suitable for transfer.

Date: January 26, 2017

Signature: 
Lawrence Lapsdale
Environmental Director
Base Realignment and Closure Program Management Office
Naval Facilities Engineering Command
By Direction

10. REFERENCES

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TABLES

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Table 1: Buildings/Structures/USTs in Carve-Out II-F-3

Building/Structure/ UST Number ^(a)	Building/Structure/UST/Description	Year of Construction	Size/Capacity
552	POL Pipeline Facility (fuel testing laboratory)	1954	304 square feet
555 ^(b)	POL Sampling/Testing Building and Office	1955	800 square feet
556	POL Pipeline Facility (former manifold station for MSC JP5)	1955	543 square feet
547	UST within former Tank Farm 555 area	1953	567,000 gallons ^(c)
548	UST within former Tank Farm 555 area	1953	567,000 gallons ^(c)
549	UST within former Tank Farm 555 area	1953	567,000 gallons ^(c)
550	UST within former Tank Farm 555 area	1953	567,000 gallons ^(c)
551	UST within former Tank Farm 555 area	1953	567,000 gallons ^(c)
MSC JP5 (Quarry Road segments)	JP5 pipeline Segments 1 and 2 extending from former Tank Farm 555 and traversing southwest through Carve-Out II-F-3	1953	8- and 12-inch diameter
Fuel pipeline between Building 556 and USTs 553 and 554 ^(d)	Pipeline extending from Building 556 to former USTs 553 and 554	1953	8-inch diameter

Sources: Earth Tech (2003), DON (2004), RORE, Inc. (2016a,b)

Notes: Buildings/structures that have been demolished or removed are not listed.
 (a) The closed Defense Fuel Support Point Norwalk pipeline was not an asset of MCAS El Toro and is not listed for this reason.
 (b) Building 555 was damaged during the 2007 Santiago Fire; only a partial structure remains.
 (c) The UST capacities are nominal/rated.
 (d) The fuel pipeline between Building 556 and USTs 553 and 554, documented as a fill pipe in the *Summary Report, Former Underground Storage Tank Sites 553 and 554* (DON 1997) was also referred to as the "residual" or "contaminated" fuel pipeline in the subsequent *Summary Report, Petroleum Release at MSC JP5 Building Study Area* (DON 2009c).

Acronyms and Abbreviations:

DON = U.S. Department of the Navy
 JP5 = jet propulsion fuel, grade 5
 MCAS = Marine Corps Air Station
 MSC = miscellaneous
 POL = petroleum, oil, and lubricants
 UST = underground storage tank

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Table 2: Environmental Requirements and Notifications

Environmental Factors Considered	Applicable to Carve-Out II-F-3
Presence of Hazardous Substances (Notification)	Yes
CERCLA/RCRA (Response/Corrective Action)	No
Presence of Petroleum Products and Derivatives	Yes
USTs/ASTs (Closure/Removal)	Yes
Munitions and Explosives of Concern – Response Actions	No
Asbestos-Containing Material	Yes
Lead-Based Paint	Yes
Polychlorinated Biphenyls	Yes
Pesticides (Agricultural)	Yes

Acronyms and Abbreviations:

AST = aboveground storage tank
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
RCRA = Resource Conservation and Recovery Act
UST = underground storage tank

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Table 3: Locations of Concern in Carve-Out II-F-3

LOC ID	Building Number/ Location	Description	Report Title/Date	Closure Status Letter Agency/Date	Notes ^(a)
APHO 101	Former Tank Farm 555 Area	Areas of Extraction and Filling	Information Package for Various Aerial Photograph Anomaly Sites (APHOs 89, 101, 106, 113) (DON 2003)	RWQCB (2003) DTSC (2005)	APHO 101 was identified on a 1967 aerial photograph and is located within former Tank Farm 555. The extraction and fill activities were found to be the result of construction of former Tank Farm 555 and the access road, where fill was placed to form the current ground surface. NFA was recommended for APHO 101 based on a VSI conducted in June 2003. The RWQCB concurred with NFA on August 14, 2003, and DTSC concurred with NFA on January 18, 2005.
UST 547	Former Tank Farm 555 Area	567,000 Gallon ^(b) (88 feet in diameter) JP5 Concrete Tank Lined with Steel and Interior Steel Columns	Summary Report, Petroleum Release at the Large Tank Area, Former Tank Farm 555 (DON 2010) Draft Site Closure Report for Groundwater, Former Tank Farm 555 (ECS 2015) Final Tank Closure Report, Inspection and Closure of Former Tank Farm 555 (RORE 2016b)	RWQCB (2011a) (soil) RWQCB (2015, 2017) (groundwater) OCHCA (2016) (USTs)	Former Tank Farm 555 area (the "site") consists of five large petroleum tanks (547 through 551) with an approximate capacity of 567,000 gallons ^(b) each. These USTs were installed in approximately 1953, taken out of service in 1998, cleaned in 2000, and closed in place by backfilling with cellular concrete in February 2016 in accordance with the <i>Final Tank Closure Activities Work Plan</i> dated February 2, 2016 (RORE, Inc. 2016b). OCHCA (2016) concurred that the USTs were appropriately abandoned. As part of historical cleanup activities, approximately 9,360 tons of petroleum-impacted soil were removed from the site, along with associated UST piping and dry wells that were located adjacent to each UST. A summary report for petroleum release at the site was submitted to the RWQCB on December 15, 2010. The RWQCB closed the vadose zone soil with NFA in a letter dated January 26, 2011. Residual petroleum hydrocarbons reported to remain in soil at the site include gasoline at concentrations up to 6,100 mg/kg (18 feet below ground surface [bgs]); JP5 at concentrations up to 3,400 mg/kg (16 feet bgs); benzene at concentrations up to 8,000 µg/kg (18 feet bgs); ethylbenzene at concentrations up to 42,000 µg/kg (18 feet bgs); total xylenes at concentrations up to 186,000 µg/kg (18 feet bgs); 1,2,4-trimethylbenzene at concentrations up to 89,000 µg/kg (18 feet bgs); and 1,3,5-trimethylbenzene at concentrations up to 29,000 µg/kg (18 feet bgs) (DON 2010; RWQCB 2011a). In addition, a residual JP5 concentration of 32,000 mg/kg was reported in one boring near the northeastern side of UST 550 at a depth of 19.5 feet bgs. Note that these depths are relative to the then-current surface grade, which has changed somewhat as a result of the UST closure activities completed in February 2016. The petroleum groundwater plume underlying the site was approved for monitored natural attenuation by the RWQCB on April 27, 2009. A draft site closure report for groundwater was submitted to the RWQCB on June 26, 2015; the RWQCB concurred with the DON's request to discontinue groundwater monitoring and agreed that NFA is needed for groundwater in a letter dated September 29, 2015, because groundwater cleanup goals had been met.

Table 3: Locations of Concern in Carve-Out II-F-3

LOC ID	Building Number/ Location	Description	Report Title/Date	Closure Status Letter Agency/Date	Notes ^(a)
					Specifically, RWQCB (2015) noted that "The analytical results of groundwater samples indicated that concentrations of benzene, toluene, ethylbenzene, and xylene were below the agreed upon cleanup goals." For the October 2013 results, the most recent available, maximum reported concentrations among all wells sampled were 250 µg/L total petroleum hydrocarbons (TPH) as gasoline, 3,100 µg/L TPH as JP5, 4.8 µg/L benzene, and 71 µg/L ethylbenzene (ECS 2015). However, monitoring well TF555MW-08, which historically exhibited the highest benzene concentrations, had insufficient water and could not be sampled at that time (ECS 2015). Therefore, concentrations for this well are summarized from 2012 data. In 2012, concentrations in monitoring well TF555MW-08 were benzene at 370 µg/L, toluene at 0.43 µg/L (estimated), ethylbenzene at 230 µg/L, total xylenes at 27 µg/L, and TPH as JP5 at 6,300 µg/L; TPH as gasoline and TPH as diesel were not detected (ECS 2015). Because this well could not be sampled in October 2013, a trend analysis was performed to estimate the likely benzene concentration had it been possible to sample the well (ECS 2015). Projections of the historical declining trend in well TF555MW-08 would result in the benzene cleanup goal of 250 µg/L being met (ECS 2015). Final groundwater closure, which was pending final UST closure, was granted by the RWQCB in a letter dated January 5, 2017.
UST 548	Former Tank Farm 555 Area	Same as above	Same as above	Same as above	Same as above
UST 549	Former Tank Farm 555 Area	Same as above	Same as above	Same as above	Same as above
UST 550	Former Tank Farm 555 Area	Same as above	Same as above	Same as above	Same as above
UST 551	Former Tank Farm 555 Area	Same as above	Same as above	Same as above	Same as above
UST 553	Near Former Building 553	10,000-Gallon Gasoline UST	Summary Report, Former UST Sites 553 and 554 (DON 1997)	RWQCB (1997)	The UST was connected to Building 556 via an 8-inch-diameter fuel pipeline; this pipeline was cut and capped on the east side of the excavation during tank removal activities. ^(c) The UST and associated piping were removed in January 1994. The site was closed by RWQCB in a letter dated November 19, 1997. According to the summary report, petroleum hydrocarbons reported as diesel were identified at concentrations between 340 and 7,800 mg/kg; the residual petroleum hydrocarbons are located beneath approximately 15 feet of clean soil. Benzene and MTBE were not detected in soil samples. Very low concentrations of less than 1 mg/L of petroleum hydrocarbons as diesel or gasoline were present in groundwater wells and piezometers. Benzene and MTBE were not detected in soil and groundwater samples.
UST 554	Near Former	10,000-Gallon	Same as above	Same as above	Same as UST 553 above; USTs 553 and 554 were located adjacent

Table 3: Locations of Concern in Carve-Out II-F-3

LOC ID	Building Number/ Location	Description	Report Title/Date	Closure Status Letter Agency/Date	Notes ^(a)
UST T-1	Building 553 Former Tank Farm 555 Area	Kerosene UST 2,000-Gallon Fuel Recovery UST	Tank Closure Report, UST T-1 (IT Group 2000)	OCHCA (2000)	to each other and were removed and investigated concurrently. UST T-1, previously also identified and named as SWMU/AOC 23 in the <i>Final Addendum to the RCRA Facility Assessment</i> (Bechtel National, Inc. 1996), was associated with former Tank Farm 555. UST T-1 was installed in 1988 as part of the spill control system for the truck loading hydrants at former Tank Farm 555; it was primarily used for holding spilled fuel from truck loading operations. The UST was removed in June 2000. No evidence of a release was identified. There were no detected concentrations of petroleum hydrocarbon constituents in the confirmation soil sample. There was no groundwater in the tank excavation. The site was closed by OCHCA in a letter dated August 31, 2000.
MSC JP5	Former Tank Farm 555 Area and CO II-F-3	Fuel Lines (Quarry Road segment)	Closure Report, Location of Concern MSC JP5, JP-5 Pipeline Units MSCJP5-1 and MSCJP5-3 (OHM Corp. 2001) Information Package, MSC JP5 Quarry Road Segment (DON 2005) Information Package, MSC JP5 Pipelines (DON 2011b)	RWQCB (2011b)	The JP5 pipelines and all associated features within CO II-F-3 are inactive. The pipelines have been closed in place by filling with concrete slurry. Petroleum hydrocarbons and VOCs were not detected at concentrations at or above laboratory reporting limits in soil samples collected adjacent to JP5 Valve Box 4, with the exception of one soil sample collected at 20 feet bgs (relative to the surface grade at the time) containing acetone and 2-butanone at concentrations less than 1% of the 2004 U.S. EPA PRGs. Low estimated concentrations of gasoline and diesel in groundwater samples collected from nearby former Tank Farm 555 monitoring well TF555MW-01 were attributed to the former Tank Farm 555 release. No visual evidence of releases were reported during trenching along the Quarry Road segment. Pipeline segments and associated features were separately investigated and closed by the RWQCB (2011b).
PCB T122	555	Transformer Pad	Final EBS (Earth Tech, Inc. 2003)	DTSC (2003) U.S. EPA (2003)	The transformer was replaced in 1998 with a non-PCB transformer. No PCB releases were identified through the records search or VSIs conducted for the 2003 EBS.

Notes:

(a) Residual petroleum hydrocarbons remain at the UST sites as noted.

(b) The UST capacities are nominal/rated.

(c) The fuel pipeline between Building 556 and USTs 553 and 554 was documented as a fill pipe in the *Summary Report, Former Underground Storage Tank Sites 553 and 554* (DON 1997) but was also referred to as the "residual" or "contaminated" fuel pipeline in the subsequent *Summary Report, Petroleum Release at the MSC JP5 Building 556 Study Area* (DON 2009c).**Acronyms and Abbreviations:**

APHO	=	aerial photograph feature/anomaly	ECS	=	Enviro Compliance Solutions, Inc.
bgs	=	below ground surface	FAA	=	Federal Aviation Administration
BRAC	=	Base Realignment and Closure	IRP	=	Installation Restoration Program
CO	=	Carve-Out	IT Group	=	The IT Group
DON	=	U.S. Department of the Navy	JP5	=	jet propulsion fuel grade 5
DTSC	=	California Environmental Protection Agency/Department of Toxic Substances Control	mg/kg	=	milligrams per kilogram
EBS	=	environmental baseline survey	mg/L	=	milligrams per liter

January 26, 2017

*Final Finding of Suitability to Transfer #9
Former MCAS El Toro, Irvine, California*

Table 3

MSC	=	miscellaneous	RWQCB	=	California Regional Water Quality Control Board, Santa Ana Region
MTBE	=	methyl tertiary butyl ether	SWMU/AOC	=	Solid Waste Management Unit/Area of Concern
NAVFAC	=	Naval Facilities Engineering Command	µg/kg	=	micrograms per kilogram
NFA	=	no further action	µg/L	=	micrograms per liter
OCHCA	=	Orange County Health Care Agency	UST	=	underground storage tank
OHM Corp.	=	OHM Remediation Services Corporation	U.S. EPA	=	United States Environmental Protection Agency
PCB	=	polychlorinated biphenyl	VOC	=	volatile organic compound
PRG	=	Preliminary Remediation Goal	VSI	=	visual site inspection

Table 4: Summary of Asbestos Surveys in Carve-Out II-F-3

Building/Facility Number	Description	Size/Capacity	Year Built	Historical Asbestos Survey Information	Comments
UST 547 ^(a)	UST within former Tank Farm 555 area	567,000 gallons ^(b)	1953	Refer to USTs 549 and 551. ^(a,c)	Refer to USTs 549 and 551. ^(a,c)
UST 548 ^(a)	UST within former Tank Farm 555 area	567,000 gallons ^(b)	1953	Refer to USTs 549 and 551. ^(a,c)	Refer to USTs 549 and 551. ^(a,c)
UST 549 ^(a)	UST within former Tank Farm 555 area	567,000 gallons ^(b)	1953	RORE, Inc. (2016a): black tar mastic/felt sampled from three locations of the exposed side surface of UST 549 in September 2014. ^(a)	Non-FAD ACM identified in one sample (other two not analyzed after first sample's positive result); no RACM found.
UST 550 ^(a)	UST within former Tank Farm 555 area	567,000 gallons ^(b)	1953	Refer to USTs 549 and 551. ^(a,c)	Refer to USTs 549 and 551. ^(a,c)
UST 551 ^(c)	UST within former Tank Farm 555 area	567,000 gallons ^(b)	1953	RORE, Inc. (2016a): tar-like coating on top center and top perimeter of UST 551 sampled in March 2015. ^(c)	Non-FAD ACM found in both samples; no RACM found.
555 ^(d)	POL Sampling/Testing Building	800 square feet	1955	IT Corporation (1989): Floor tile, pipe insulation.	FAD ACM found.
556	POL Pipeline Facility (manifold station for MSC JP5)	543 square feet	1955	E&E (1991): Roofing.	Non-FAD ACM found; no interior ACM observed.
Tank Farm 555 UST Vaults	Outside of (formerly) exposed UST vaults	N/A	1953	RORE, Inc. (2016a): black felt/mastic samples collected from exposed surfaces of vaults associated with USTs 548, 549, and 551 in September 2014.	Non-FAD ACCM identified on exposed UST vaults and assumed to also exist on unsampled vaults; no RACM found.
Tank Farm 555 Construction Debris	Miscellaneous construction debris (concrete debris and concrete from pipe conduits)	N/A	N/A	RORE, Inc. (2016a): samples collected from miscellaneous construction debris at the site in September 2014.	No ACM found.

Sources: Earth Tech (2003), E&E (1991), IT Corporation (1989), RORE, Inc. (2016a,b)

Notes: Based on standard construction practices of the time, there is the potential for ACM to be associated with any underground fuel, hot water, and other pipelines at Former MCAS El Toro that were not removed during the DON's extensive remedial activities.

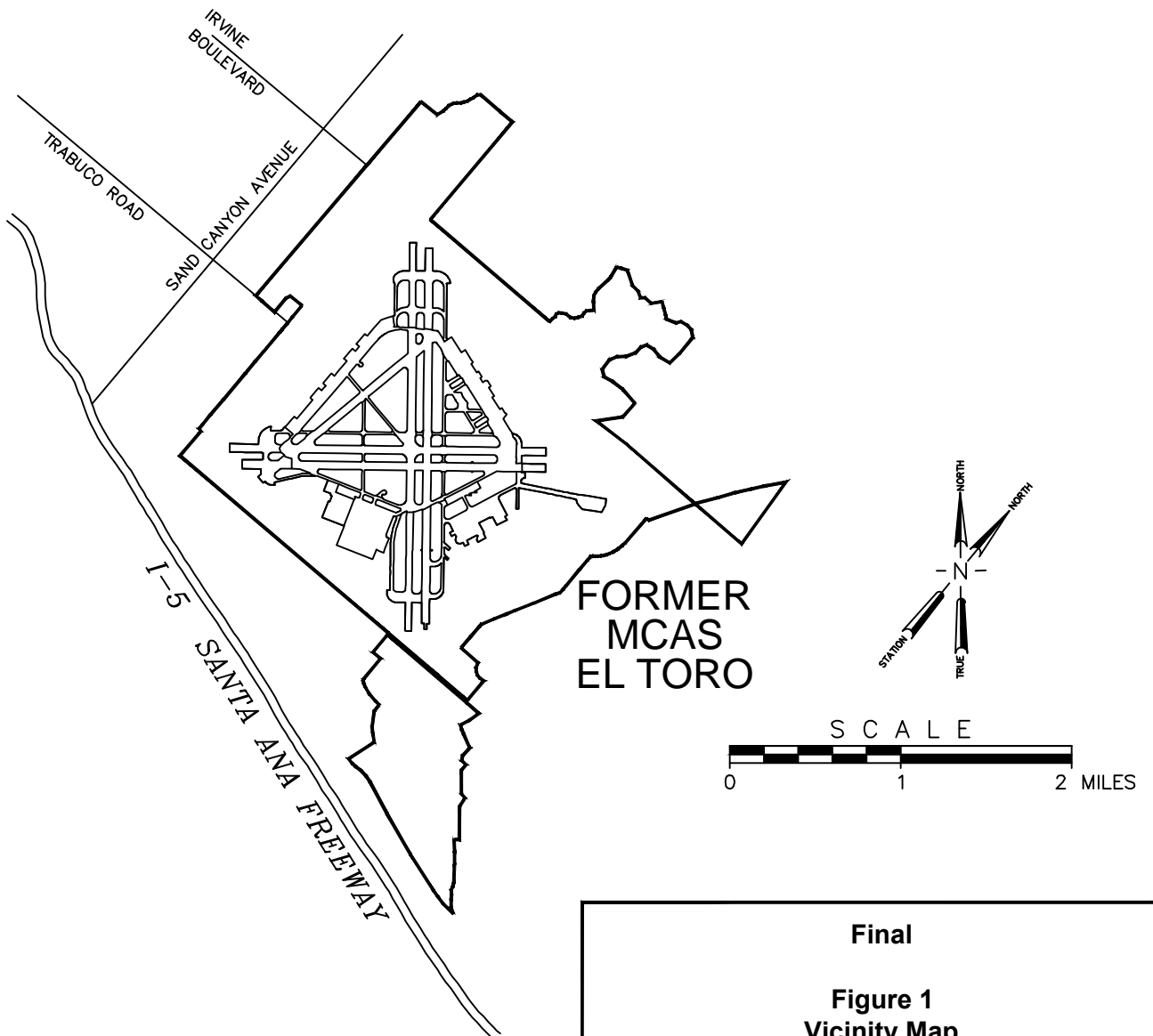
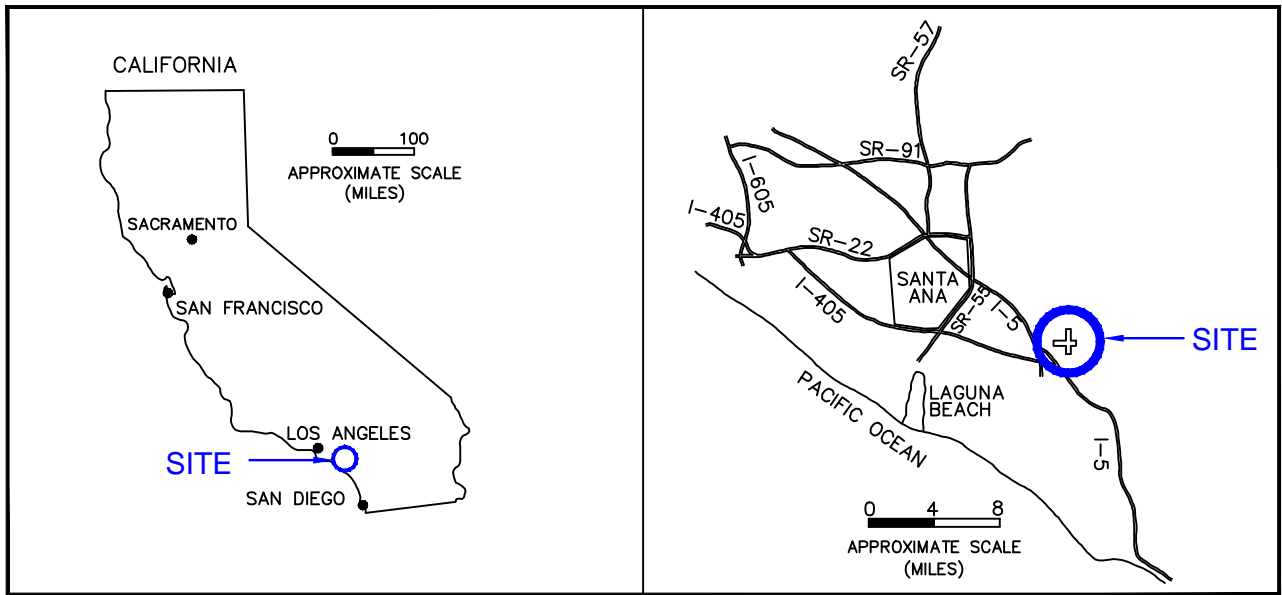
- (a) Only the UST 551 black tar top coating was sampled (tank center and tank perimeter); however, the other four USTs (547, 548, 549, and 550) within the former Tank Farm 555 area are believed to have a similar black tar top coating and are assumed to also contain non-FAD asbestos.
- (b) The UST capacities are nominal/rated.
- (c) Only the UST 549 black tar mastic/felt side coating was sampled (three locations); however, the other four USTs (547, 548, 550, and 551) within the former Tank Farm 555 area are believed to have a similar black tar mastic/felt side coating and are assumed to also contain non-FAD asbestos.
- (d) Building 555 was damaged during the 2007 Santiago Fire; only a partial structure remains. An asbestos survey was completed before the fire damage.

Acronyms and Abbreviations:

ACM	=	asbestos-containing material
ACCM	=	asbestos-containing construction material
DON	=	United States Department of the Navy
E&E	=	Ecology & Environment, Inc.
FAD	=	friable, accessible, and damaged
JP5	=	jet propulsion fuel, grade 5
MCAS	=	Marine Corps Air Station
MSC	=	miscellaneous
N/A	=	not applicable
POL	=	petroleum, oil, and lubricants
RACM	=	regulated ACM
UST	=	underground storage tank

FIGURES

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Final

Figure 1
Vicinity Map
Finding of Suitability to Transfer #9
Former MCAS El Toro, Irvine, California

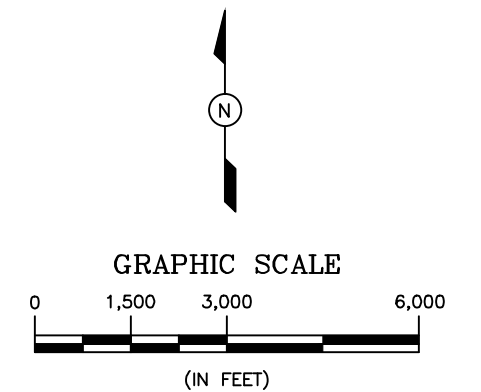
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Legend

-  Carve-Out Area (FOST #9)
-  Leased Area (Carve-Out)
-  Former MCAS El Toro Boundary
-  Non-Leased Navy Property
-  Road

Source:
Final Environmental Baseline Survey.
Former Marine Corps Air Station
El Toro, California. Earth Tech 2003.

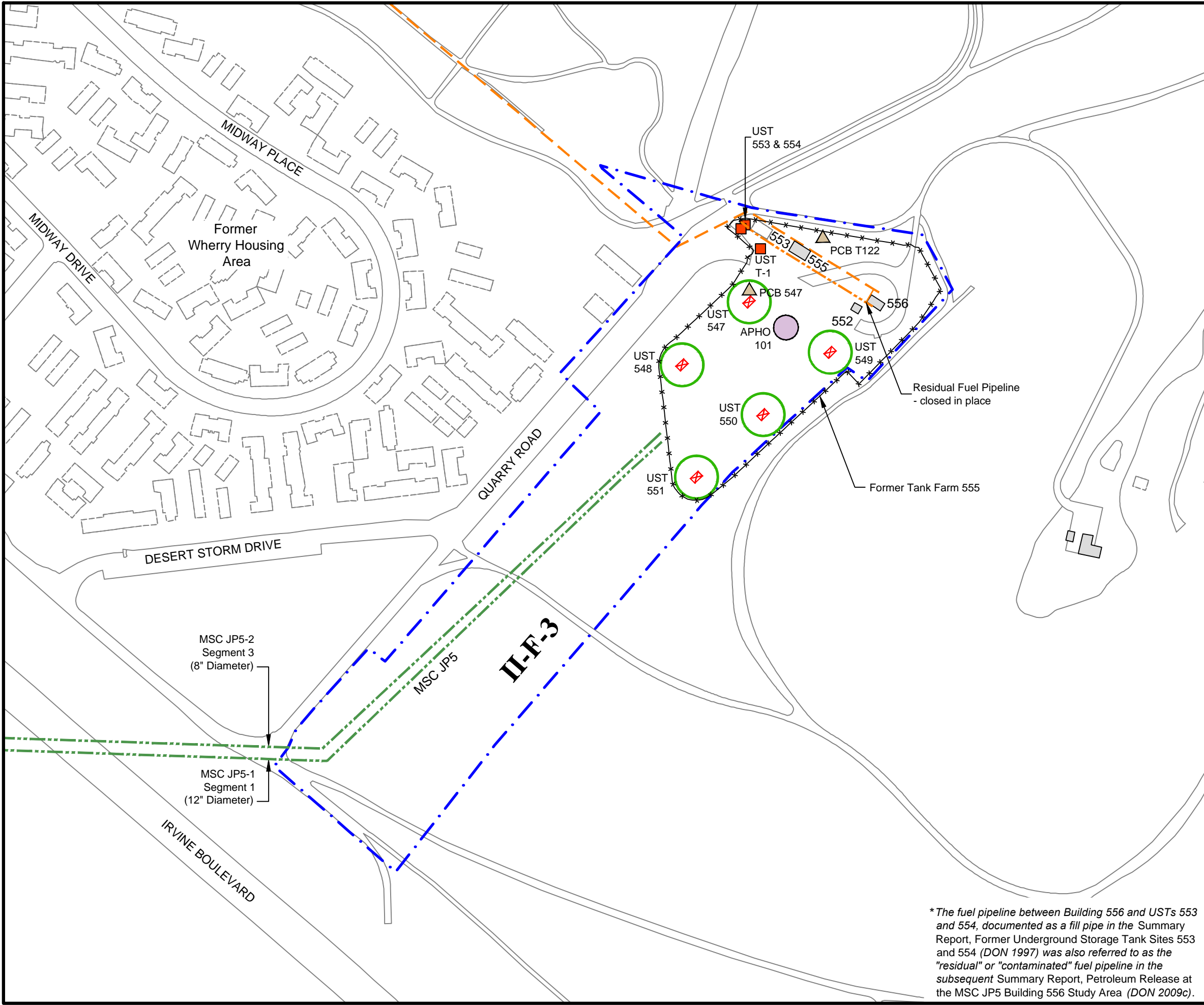


Final

Figure 2
Carve-Out Areas Location Map
Finding of Suitability to Transfer #9
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Legend

- II-F-3** Carve-Out Area (FOST #9)
- Roads
- Building - Existing Building - Demolished
- Abandoned Norwalk Pipeline - closed in place (portion west of Quarry Road removed in 2006)
- Fuel Pipeline to USTs 553 and 554 - closed in place *
- Former Underground Storage Tank (UST) - removed
- Former Polychlorinated biphenyl (PCB) Transformer/Equipment
- Miscellaneous (MSC) Jet Propulsion Fuel, grade 5 (JP5) pipelines closed in place
- Former Tank Vault
- Former Tank Farm 555 (fenceline)
- Former UST - closed in place Aerial Photograph Anomaly (APHO) Area

Not to Scale

GRAPHIC SCALE

0 100 200
1"=200'
(IN FEET)

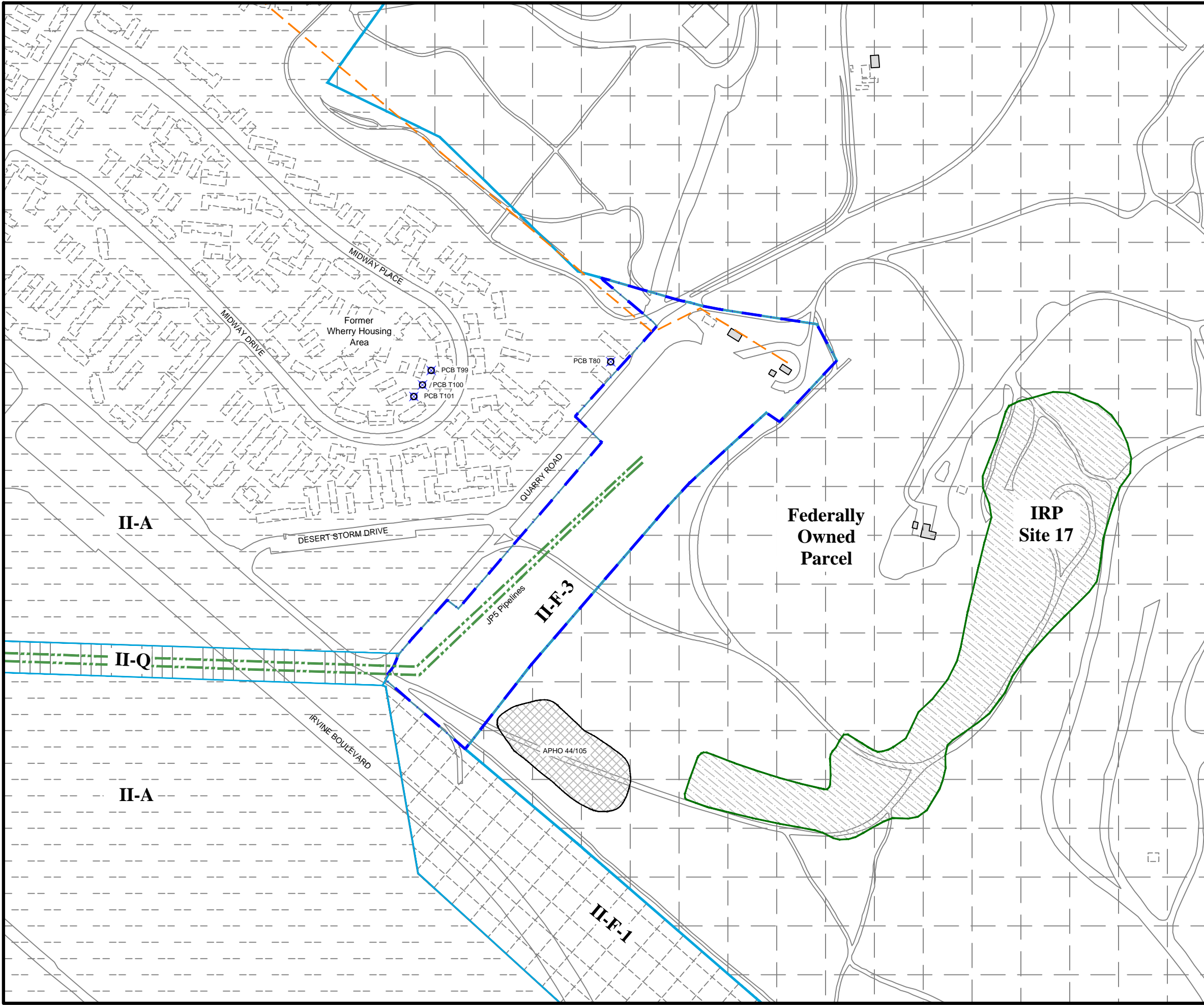
Sources:
Summary Report, Petroleum Release at the Large Tank Area, Former Tank Farm 555, Department of the Navy, December 15, 2010.
Summary Report, Petroleum Release at MSC JP5 Building 556 Study Area, Department of the Navy, October 21, 2009.
Information Package, MSC JP5 Quarry Road Segment, Department of the Navy, May 31, 2005.
Final Environmental Baseline Survey (EBS); Earth Tech, 2003.
Site Assessment Report, Underground Storage Tanks 548 and 551, Marine Corps Air Station El Toro, California, Department of the Navy, October 1998.

Final

Figure 3
Carve-Out II-F-3
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*The fuel pipeline between Building 556 and USTs 553 and 554, documented as a fill pipe in the Summary Report, Former Underground Storage Tank Sites 553 and 554 (DON 1997) was also referred to as the "residual" or "contaminated" fuel pipeline in the subsequent Summary Report, Petroleum Release at the MSC JP5 Building 556 Study Area (DON 2009c).

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Legend

II-F-3 Carve-Out Area (FOST #9)

Installation Restoration Program Site

Building - Existing Building - Demolished

Abandoned Norwalk Pipeline - closed in place (portion west of Quarry Road removed in 2006)

Former Polychlorinated Biphenyl Transformer

Miscellaneous (MSC) Jet Propulsion Fuel, grade 5 (JP5) pipelines closed in place

Aerial Photograph Anomaly (APHO) Area

Adjacent parcels

Federally-owned Parcel

II-A II-F-1 II-Q

Not to Scale

GRAPHIC SCALE

0 100 200 300

1"=300'
(IN FEET)

N

Sources:

Final Finding of Suitability to Transfer #7 for Carve-Outs II-F-1, II-Q, and II-V-1, Department of the Navy, July 2012.

Final Remedial Action Completion Report (RACR), Installation Restoration Program Sites 2 and 17; Earth Tech, 2009a.

Information Package, MSC JP5 Quarry Road Segment, Department of the Navy, May 31, 2005.

Final Finding of Suitability to Transfer (Parcel IV and Portions of Parcels I, II, and III), Department of the Navy, July 2004.

Final Environmental Baseline Survey (EBS); Earth Tech, 2003.

Final

Figure 4

Adjacent Properties

Carve-Out II-F-3

Finding of Suitability to Transfer #9

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ATTACHMENT 1

Responses to Comments

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Responses to Comments
Draft Finding of Suitability to Transfer #9 for Carve-Out II-F-3
Former Marine Corps Air Station El Toro, Irvine, CA
Document Dated 26 July 2016
Contract No. N62473-12-D-2012, Task Order No. 0084

Number	Reference	Comment	Response
Comments received from Ms. Patricia Hannon, PG, Engineering Geologist, California Regional Water Quality Control Board, Santa Ana Region (RWQCB) via email on 6 September 2016			
1	Table 3, UST 547, Notes	Please add that the residual concentrations of petroleum were detected at depths of between 18 and 21 feet.	<p>The following sentences will be added to the notes after the list of maximum reported residual concentrations for UST 547:</p> <p><i>These residual concentrations of petroleum hydrocarbons remaining in soil were detected at depths of approximately 18 to 21 feet below ground surface relative to the grade at the time of the work. The surface grade has changed somewhat as a result of the UST closure activities completed in February 2016.</i></p> <p>In addition, for completeness, the source of the residual soil concentration data will be cited in the table as DON (2010) and RWQCB (2011a).</p>
2	Table 3, UST 547, Notes	"UST 555" should be changed to "UST 550" in the sentence stating "In addition, a residual JP5 concentration of 32,000 mg/kg was reported in one boring near the northeast side of UST 555."	"UST 555" was a typographical error and will be corrected to "UST 550."
3	Table 3, UST 547, Notes	The maximum concentrations of volatile petroleum constituents in the groundwater in 2012 were benzene at 370 µg/L, toluene at 0.43 µg/L, ethylbenzene at 230 µg/L, total xylene at 27 µg/L, TPH-JP5 at 6300 µg/L. TPH as gasoline and diesel were not detected. By 2013 the well (TF555MW-08) with the historically highest concentrations of BTEX and TPH was dry.	<p>The text beginning with "Residual petroleum hydrocarbon concentrations in groundwater..." will be changed as follows.</p> <p><i>RWQCB (2015) noted that "The analytical results of groundwater samples indicated that concentrations of benzene, toluene, ethylbenzene, and xylene were below the agreed upon cleanup goals." For the October 2013 results, the most recent available, maximum reported concentrations among all wells sampled were 250 µg/L total petroleum hydrocarbons (TPH) as gasoline, 3,100 µg/L TPH as JP5, 4.8 µg/L benzene, and 71 µg/L ethylbenzene (ECS 2015). However, monitoring well TF555MW-08, which historically exhibited the highest benzene concentrations, had insufficient water and could not be sampled at that time (ECS 2015). Therefore, concentrations for this well are summarized from 2012 data. In 2012, concentrations in monitoring well TF555MW-08 were benzene at 370 µg/L, toluene at 0.43 µg/L (estimated), ethylbenzene at 230 µg/L, total xylenes at 27 µg/L, and TPH as JP5 at 6,300 µg/L; TPH as gasoline and TPH as</i></p>

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Number	Reference	Comment	Response
			<p><i>diesel were not detected (ECS 2015). Because this well could not be sampled in October 2013, a trend analysis was performed to estimate the likely benzene concentration had it been possible to sample the well (ECS 2015). Projections of the historical declining trend in well TF55MW-08 would result in the benzene cleanup goal of 250 µg/L being met (ECS 2015).</i></p> <p>Please note that the citations refer to the <i>Draft Site Closure Report for Groundwater, Former Tank Farm 555</i> (ECS 2015) and the subsequent no-further-action concurrence letter from RWQCB (2015).</p>
Comments received from Ms. Jennifer Rich, Environmental Scientist, California Department of Toxic Substances Control (DTSC), via letter dated 6 October 2016.			
General Comments			
1	Section 4.0 and Table 2	<p>Please provide the following notification in Section 4.0 and Table 2:</p> <p>SCHOOL SITE CONSIDERATIONS</p> <p>If, subsequent to transfer, any portions of the property found suitable to transfer by this FOST is considered for the proposed acquisition and/or construction of school properties utilizing state funding, a separate environmental review process in compliance with the California Education Code section 17210 et seq. will need to be conducted by the transferee and approved by DTSC (Brownfields and Environmental Restoration Program). The California Education Code requires that a comprehensive evaluation of natural and manmade hazardous materials be conducted for school properties. This comprehensive evaluation requires additional investigation of hazardous materials outside the scope of CERCLA hazardous substances. This additional evaluation includes: legally applied</p>	<p>As was the case for Findings of Suitability to Transfer (FOSTs) #6, #7, and #8, FOST #9 was prepared in accordance with the United States Department of Defense's <i>Base Redevelopment and Realignment Manual</i> (1 March 2006), which does not require "school site considerations" to be included. No changes will be made to the text or to Table 2 in response to this comment. This comment and response will be documented in the Unresolved Comments section (Attachment 2) of the final version of FOST #9.</p>

Responses to Comments
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Number	Reference	Comment	Response
		pesticides and herbicides, imported fill materials, naturally occurring hazardous substances such as heavy metals (e.g., chromium, mercury, nickel), metalloids (e.g., arsenic, selenium), gases (e.g., methane, hydrogen sulfide), radioactive elements (e.g., radon gas), naturally occurring petroleum deposits, and naturally occurring asbestos. The evaluation also includes asbestos containing material and lead based paint at concentrations that fall outside the scope of CERCLA. Any requirements associated with the evaluation of any property for compliance with the California Education Code are the sole responsibility of the transferee.	
2	General	Please ensure that any notifications and restrictions from the July 2004 Finding of Suitability to Lease, that are applicable to carve-out (CO) 11-F-3, are incorporated into FOST #9.	All applicable notifications and restrictions have been incorporated into FOST #9.
3	General	The 2003 Environmental Baseline Survey (EBS) shows APHO 44 within CO II-F-3 (Figures 4-4 and 6-1a). Please explain why FOST #9 shows APHO 44 within the adjacent property.	During preparation of Draft FOST #9, multiple documents were reviewed by the Navy and its contractor in an effort to resolve the discrepancy in the location of Aerial Photograph Feature/Anomaly (APHO) 44. It was determined that the <i>Final Remedial Action Completion Report, Installation Restoration Program (IRP) Sites 2 and 17</i> (Earth Tech, Inc. [Earth Tech] 2009a) presented the most accurate and detailed information for APHO 44; therefore, the location presented in that document was shown on Figure 4 in Draft FOST #9. As noted in Section 6 of Draft FOST #9, APHO 44 was investigated under adjacent IRP Site 17, including a geophysical survey conducted over a 9-acre area to search for debris. This survey area extended onto Carve-Out II-F-3 (including the location shown in the EBS). Any waste materials found were consolidated into the IRP Site 17 landfill. Other documents reviewed to determine the correct location of APHO 44 included the <i>Final Interim Record of Decision, Operable Unit 2B, Landfill Sites 2 and 17</i> (DON 2000b); <i>Summary Report, Aerial Photograph Anomaly 44</i> (DON 2000a); <i>Final Environmental Baseline Survey</i> (Earth Tech 2003); and <i>Final Operation and Maintenance Plan, IRP Sites 2 and 17</i>

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Number	Reference	Comment	Response
			(Earth Tech 2009b).
4	Figure 3	The EBS (Figure 6-1a) shows PCB 547 within CO II-F-3, however, PCB 547 is not shown on FOST #9 (Figure 3). Please explain the discrepancy.	PCB 547 is listed in Attachment 4 of Draft FOST #9 as a non-transformer PCB item associated with a former tank vault structure at underground storage tank (UST) 547. This vault was located on the top and near the center of the UST (Figure 3 of Draft FOST #9), which makes the location shown on EBS Figure 6-1a appear to be incorrect. A triangle symbol depicting PCB 547 will be added to Figure 3 at approximately the location of the vault on UST 547. In addition, the "Area Type ID" entry in Attachment 4 will be modified to "Non-Trans 547 (PCB 547)," and the "Building/Structure Number" will be modified to "UST 547".
5	Figure 3	The locations of the underground storage tanks appear to be different when comparing the EBS (Figure 6-1a) with FOST #9 (Figure 3). Please explain the discrepancies.	Upon further review, Figure 6a in the EBS contains the following errors: UST 548 is in the incorrect location (it should not be adjacent to UST 547); UST 549 is mislabeled and should be labeled as UST 548; and the actual UST 549 location is not shown. The other locations are correct and depict the center locations of the USTs. Please note that in the EBS the locations are depicted as points (i.e., centers of the USTs), while various former Tank Farm 555 documents contain much more detailed maps that depict the actual UST diameters (88 feet) and locations. Therefore, the detailed locations and accurate diameters depicted in the former Tank Farm 555 documents were used for Figure 3 in Draft FOST #9. Examples are Figure 3 in the <i>Site Assessment Report, Underground Storage Tanks 548 and 551</i> (DON 1998; precedes the EBS); Figures 2 and 3 in the <i>Summary Report, Petroleum Release at the Large Tank Area, Former Tank Farm 555</i> (DON 2010); and Figures 2 and 3 in the <i>Final Tank Closure Report, Inspection and Closure of Former Tank Farm 555</i> (RORE, Inc. 2016b; note that Figure 3 is an engineering design drawing). These former Tank Farm 555 documents are all consistent in their depiction of the locations of the USTs.
Specific Comments			
1	Page 1, Section 2	Please provide information on the lessee(s), similar to what was provided in FOST #8.	<p>The following sentence will be added after the last sentence in the first paragraph of Section 2:</p> <p style="text-align: center;"><i>In 2005, CO II-F-3 was leased to Heritage Fields, Limited Liability Company, under a Lease in Furtherance of Conveyance (DON 2005b).</i></p> <p>The following reference will be added to the DON references in Section 10:</p>

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Number	Reference	Comment	Response
			<p>———. 2005b. <i>Lease in Furtherance of Conveyance between the United States of America and Heritage Fields LLC, a Delaware Limited Liability Company, for MCAS El Toro Parcel 2</i>. July 12.</p> <p>To accommodate this new citation, the existing DON (2005) reference will be relabeled DON (2005a) where applicable.</p>
2	Page 2-3, Section 3.1	In paragraphs 2 and 4, it states that no solid waste management units (SWMUs) were/are located on CO 11-F-3, however, in the notes section of Table 3, UST T-1 is also referred to as "SWMU/AOC 23". SWMU/AOC 23 is listed on Table 4-1 (Comprehensive List of SWMUs and Areas of Concern Identified during the Preliminary Review/Visual Site Inspection, MCAS El Toro RFA) of the MCAS El Toro Final RCRA Facility Assessment Report (Volume I), dated July 16, 1993. Please make the necessary corrections. Also, please ensure there are no other SWMUs/AOCs that were/are located on CO II-F-3.	<p>According to the information presented in Section 4.1.2.1 (page 4-3) of the EBS (Earth Tech 2003), the <i>Final RCRA Facility Assessment (RFA) Report</i> (Jacobs Engineering Group, Inc. 1993) identified 305 SWMUs/AOCs, which were later reduced in number to 283 in the <i>Final Addendum to the RCRA Facility Assessment</i> (Bechtel National, Inc. 1996). Of these, 76 were addressed as USTs, including UST T-1, because it contained waste JP5 only and was closed by Orange County Health Care Agency (OCHCA 2000). UST T-1 is discussed in the last paragraph of Section 4.2.1, Underground Storage Tanks. Inclusion of the site as a SWMU in Section 3.2, Resource Conservation and Recovery Act Subtitle I Corrective Action, could be confusing, so no changes to the text are recommended. However, to address the comment, in Table 3, UST T-1 row, Notes column, the first sentence will be revised as follows:</p> <p><i>UST T-1, previously also identified and named as SWMU/AOC 23 in the Final Addendum to the RCRA Facility Assessment (Bechtel National, Inc. 1996), was associated with former Tank Farm 555.</i></p> <p>Formal reference to this addendum will be added to Section 10. There are no other SWMUs/AOCs located on CO II-F-3.</p>
3	Page 4, Section 4, Last Paragraph, Last Sentence	Please see Specific Comment #2 above.	Please see the response to DTSC Specific Comment #2 above.
4	Page 5, Section 4.2.1, Paragraph 2, Last Sentence	Please update the information if applicable.	This comment refers to the following sentence: "Formal groundwater closure is expected to be provided by the RWQCB before this FOST is finalized." According to a Closure Notification Letter submitted by the RWQCB to the DON on 10 October 2016, after a 60-day comment period from the date of the letter, if no objections to the proposed closure are received, a final Case Closure Summary will be issued by the RWQCB. The closure information will be updated appropriately in the draft final

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Number	Reference	Comment	Response
			and/or final version of FOST #9.
5	Page 6, Section 4.2.4	a. This section discusses the Defense Fuel Support Point Norwalk pipeline. Figure 3 shows an abandoned Norwalk Pipeline and a Residual Fuel Pipeline. Are these one in the same? Please explain.	<p>a. Figure 3 shows these as separate features that are symbolized differently; they are not the same. As noted in Section 4.2.1, the former Defense Fuel Support Point Norwalk pipeline supplied fuel to former Tank Farm 555. The residual fuel pipeline extended from Building 556 to former USTs 553 and 554. To clarify the difference, the following will be added to Section 4.2.1 before the last sentence of paragraph 1:</p> <p style="padding-left: 40px;"><i>An 8-inch-diameter pipeline conveyed fuel between Building 556 and former USTs 553 and 554; this pipeline was closed in place (Figure 3; DON 1997).</i></p> <p>Furthermore, on Figure 3, the “residual fuel pipeline” will be renamed “fuel pipeline to USTs 553 and 554 – closed in place” to be consistent with the <i>Summary Report, Former Underground Storage Tank Sites 553 and 554</i> (DON 1997). Because the subsequent <i>Summary Report, Petroleum Release at the MSC JP5 Building 556 Study Area</i> (DON 2009c) also refers to this pipeline as the “residual” or “contaminated” fuel pipeline, the following footnote will be added to the Figure 3 pipeline description :</p> <p style="padding-left: 40px;"><i>The fuel pipeline between Building 556 and USTs 553 and 554, documented as a fill pipe in the Summary Report, Former Underground Storage Tank Sites 553 and 554 (DON 1997) was also referred to as the “residual” or “contaminated” fuel pipeline in the subsequent Summary Report, Petroleum Release at the MSC JP5 Building 556 Study Area (DON 2009c).</i></p> <p>In addition, based upon further review of the figures and information in the <i>Summary Report, Former Underground Storage Tank Sites 553 and 554</i> (DON 1997) and the <i>Tank Closure Report, Underground Storage Tank (UST) T-1</i> (IT Group 2000), the locations of USTs T-1, 553, and 554 depicted on Figure 3 of Draft FOST #9 will be moved to their correct locations near the northwestern end of the residual fuel pipeline, just inside the fence. Finally, as a result of the further document review relating to the locations of these USTs, to further clarify the use and location of UST T-1, the following will be added to the Notes in Table 3 for UST T-1:</p>

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		b. This section states "The pipeline was not an asset of Former MCAS El Toro (United States Marine Corps 1999)." Is this why it isn't included as a Location of Concern (LOC) in Table 3? Interestingly, however, the Norwalk Pipeline is included in Attachment 5. Please explain.	<p><i>UST T-1 was installed in 1988 as part of the spill control system for the truck loading hydrants at former Tank Farm 555; it was primarily used for holding spilled fuel from truck loading operations.</i></p> <p>b. Table 3 in Draft FOST #9 contains features identified in Section 1.4 and various tables in the EBS (Earth Tech 2003) as LOCs. The former Defense Fuel Support Point Norwalk pipeline was not listed in the EBS as a LOC, nor was it defined as part of the MSC JP5 system or former Tank Farm 555; therefore, it was excluded from Table 3. Also, as indicated in Section 4.2.4 and reiterated in the comment, this pipeline was not an asset of MCAS El Toro. Please note that the basis for inclusion of items as LOCs in Table 3 (i.e., they were listed as LOCs in the EBS) differs from the basis for inclusion in the Hazardous Substances Notification Table (Attachment 5), which includes reportable quantities used at the site that are not LOCs, along with other facilities/constituents that were present at the site. Therefore, it is possible for a facility or constituent listed in Attachment 5 not to be a LOC.</p>
6	Page 8, Section 5.2, Paragraph 1	The fourth sentence states "Regulatory closure for former Tank Farm 555 was granted in July 2016 (OCHCA 2016)." Has the Regional Water Quality Control Board (RWQCB) granted closure? If so, please include a reference.	Please see the response to DTSC Specific Comment #4.
7	Pages 9 and 10, Section 6	Why isn't a discussion about the Norwalk Pipeline included in this section?	<p>The following text will be added to a new paragraph at the end of Section 6:</p> <p><i>The former Defense Fuel Support Point Norwalk pipeline crossed through Parcel II-A and the federally owned parcel (Figure 4). As stated in Section 4.2.4, this pipeline was closed in 1999 (Earth Tech 2003)."</i></p> <p>Also, the pipeline location will be added to Figure 4.</p>
8	Page 10, Section 6, Last Paragraph	<p>a. The reference listed here for the "Final Interim Record of Decision (DON 2000)" is not consistent with what is listed in Section 10 (References) on page 14.</p> <p>b. The last sentence states "The buffer zone (area</p>	<p>a. The reference will be revised to (DON 2000b).</p> <p>b. The "IR" acronym will be corrected to "IRP" and references to DTSC (2010), U.S.</p>

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Number	Reference	Comment	Response										
		requiring institutional controls) around the IR [sic] Site 17 landfill of 100 feet (DON 2011a; RWQCB 2011c) is sufficient for protecting CO II-F-3.” Why aren’t there references for the Department of Toxic Substances Control and the United States Environmental Protection Agency regarding concurrence for the Explanation of Significant Differences/buffer zone reduction?	<p>Environmental Protection Agency (2011), and RWQCB (2010) will be added to demonstrate complete concurrence. These references will be added to Section 10 as follows:</p> <p><i>DTSC. 2010. Letter from Quang Than, Remedial Project Manager, Brownfields and Environmental Restoration Program, to James Callian, BRAC Environmental Coordinator, U.S. Department of the Navy, re: Draft Explanation of Significant Differences (ESD), Buffer Zone Reduction, Installation Restoration Program (IRP) Sites 2 & 17, Former Marine Corps Air Station (MCAS) El Toro, Irvine, California. December 14.</i></p> <p><i>U.S. Environmental Protection Agency. 2011. E-mail from Mary T. Aycock, Superfund Remedial Project Manager, to Marc P. Smits, Remedial Project Manager, U.S. Department of the Navy, re: Final Concurrence with the ESD. February 10.</i></p> <p><i>RWQCB. 2010. Letter from John Broderick, Land Disposal and DoD Section, to James Callian, BRAC Environmental Coordinator, U.S. Department of the Navy, re: No Comments on Draft ESD. November 17.</i></p>										
9	Table 1	Why aren’t the pipelines that were closed in place listed here, similar to what was done for the 2004 FOST and FOST 2?	<p>The following entries will be added to Table 1 to cover the MSC JP5 pipelines and the fuel pipeline between Building 556 and USTs 553 and 554 discussed in the response to DTSC Specific Comment #5:</p> <table border="1"> <thead> <tr> <th colspan="2">Building/Structure/UST</th><th rowspan="2">Year of Construction</th><th rowspan="2">Size/Capacity</th></tr> <tr> <th>Number</th><th>Description</th></tr> </thead> <tbody> <tr> <td>MSC JP5 (Quarry Road segments)</td><td>JP5 pipeline Segments 1 and 2 extending from former Tank Farm 555 and traversing southwest</td><td>1953</td><td>8- and 12-inch diameter</td></tr> </tbody> </table>	Building/Structure/UST		Year of Construction	Size/Capacity	Number	Description	MSC JP5 (Quarry Road segments)	JP5 pipeline Segments 1 and 2 extending from former Tank Farm 555 and traversing southwest	1953	8- and 12-inch diameter
Building/Structure/UST		Year of Construction	Size/Capacity										
Number	Description												
MSC JP5 (Quarry Road segments)	JP5 pipeline Segments 1 and 2 extending from former Tank Farm 555 and traversing southwest	1953	8- and 12-inch diameter										

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Number	Reference	Comment	Response			
			Fuel pipeline between Building 556 and USTs 553 and 554	through CO II-F-3		
				Pipeline extending from Building 556 to former USTs 553 and 554	1953	8-inch diameter
10	Table 3, USTs 547, 548, 549, 550, and 551	a. In the notes, please include the depths at which the concentrations were found.	<p>Please refer to the response to DTSC Specific Comment #5 that states that the former Defense Fuel Support Point Norwalk pipeline was not an asset of MCAS El Toro. It is not included in Table 1 for this reason. Also, to be consistent with the DON's response to DTSC Specific Comment #5a, the following footnote will be added to Table 1 regarding the fuel pipeline between Building 556 and USTs 553 and 554:</p> <p><i>The fuel pipeline between Building 556 and USTs 553 and 554, documented as a fill pipe in the Summary Report, Former Underground Storage Tank Sites 553 and 554 (DON 1997) was also referred to as the "residual" or "contaminated" fuel pipeline in the subsequent Summary Report, Petroleum Release at the MSC JP5 Building 556 Study Area (DON 2009c).</i></p> <p>a. The eighth and ninth sentences in the notes for UST 547 will be revised and a new tenth sentence will be added as follows:</p> <p><i>Residual petroleum hydrocarbons reported to remain in soil at the site include gasoline at concentrations up to 6,100 mg/kg (18 feet below ground surface [bgs]); JP5 at concentrations up to 3,400 mg/kg (16 feet bgs); benzene at concentrations up to 8,000 µg/kg (18 feet bgs); ethylbenzene at concentrations up to 42,000 µg/kg (18 feet bgs); total xylenes at concentrations up to 186,000 µg/kg (18 feet bgs); 1,2,4-trimethylbenzene at concentrations up to 89,000 µg/kg (18 feet bgs); and 1,3,5-trimethylbenzene at concentrations up to 29,000 µg/kg (18 feet bgs). In addition, a residual JP5 concentration of 32,000 mg/kg was reported in one boring near the northeastern side of UST 550 at a depth of 19.5 feet bgs. Note that these depths are relative to the then-current surface grade,</i></p>			

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Number	Reference	Comment	Response
		<p>b. Was a risk assessment performed?</p> <p>c. Is the Former Tank Farm 555 Area suitable for unrestricted use?</p> <p>d. The last sentence in the notes states "OCHCA (2016) concurred that the USTs were appropriately abandoned." Was concurrence received from the RWQCB? If so, please include a reference.</p>	<p><i>which has changed somewhat as a result of the UST closure activities completed in February 2016.</i></p> <p>b. A risk assessment was not performed.</p> <p>c. Yes, once formal groundwater closure is obtained from RWQCB (please see the response to DTSC Specific Comment #4). Multiple petroleum corrective actions were completed at former Tank Farm 555 to the satisfaction of the overseeing regulatory agencies.</p> <p>d. Please refer to the response to DTSC Specific Comment #4.</p>
11	Table 3	<p>a. MSC JP5 – In the notes, the third sentence refers to "soil sample". Is this one soil sample or multiple soil samples? Please make the necessary correction.</p> <p>b. Why aren't the Norwalk and Residual Fuel Pipelines (shown on Figure 3) included as LOCs in Table 3?</p>	<p>a. The text will be revised to state "Petroleum hydrocarbons and VOCs were not detected at concentrations at or above laboratory reporting limits in soil samples collected adjacent to JP5 Valve Box 4, with the exception of one soil sample collected at 20 feet bgs (relative to the surface grade at the time) containing acetone and 2-butanone at concentrations less than 1% of the 2004 U.S. EPA PRGs."</p> <p>b. With regard to the former Defense Fuel Support Point Norwalk pipeline, please refer to the response to DTSC Specific Comment #5b.</p> <p>The residual fuel pipeline was not explicitly listed in the EBS as a LOC, nor was it defined in documents as part of MSC JP5 (Table 4-14 of the EBS [Earth Tech 2003]); therefore, it was also excluded from Table 3 in Draft FOST #9. However, because the residual fuel line was part of the UST 553 and 554 system, this association will be clarified in Table 3 by replacing the first sentence in the Notes for UST 553 with the following:</p> <p><i>The UST was connected to Building 556 via an 8-inch-diameter fuel pipeline; this pipeline was cut and capped on the east side of the</i></p>

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			<p><i>excavation during tank removal activities.</i></p> <p>Please note that as explained the response to DTSC Specific Comment #5a, the “residual fuel pipeline” on Figure 3 will be renamed. In addition, to be consistent with the response to DTSC Specific Comment #5a, the following footnote will be added to Table 3 regarding the fuel pipeline between Building 556 and USTs 553 and 554:</p> <p><i>The fuel pipeline between Building 556 and USTs 553 and 554 was documented as a fill pipe in the Summary Report, Former Underground Storage Tank Sites 553 and 554 (DON 1997) but was also referred to as the “residual” or “contaminated” fuel pipeline in the subsequent Summary Report, Petroleum Release at the MSC JP5 Building 556 Study Area (DON 2009c).</i></p> <p>c. VOC and MTBE will be included in the acronyms and abbreviations. In addition, “bgs” will also be defined.</p>
12	Table 4	<p>c. Acronyms and Abbreviations – Please include VOCs and MTBE.</p> <p>a. Building 552, shown on Table 1, is missing from Table 4. Please include Building 552 on Table 4.</p> <p>b. Building 555 – There was a note added for Building 555 in Table 1. It might be helpful to also include that same note here in Table 4.</p> <p>c. Please include MSC JP5 in the table, as was done in FOST #7. The Norwalk and Residual Fuel Pipelines which according to Figure 3 were closed in place, should also be included since they are located within CO II-F-3 and are referred to as facilities in Section 4.2.4.</p> <p>d. Why are USTs 547, 548, and 550 the only ones that have notes (a) and (c) associated with them? It seems as though UST 549 should also include note</p>	<p>a. There is no record that Building 552 was ever inspected or tested for asbestos; therefore, it will not be added to Table 4.</p> <p>b. A new note (d) will be added to Building 555 stating “Building 555 was damaged during the 2007 Santiago Fire; only a partial structure remains. An asbestos survey was completed before the fire damage.”</p> <p>c. MSC JP5 was not surveyed for asbestos and thus it is not necessary to include in the table.</p> <p>d. Table 4 will be revised to include note (a) for UST 549 and note (c) for UST 551.</p>

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Number	Reference	Comment	Response
		(a) and UST 551 should include note (c). e. Why isn't all the information included in Section 4.3 regarding the work done by RORE included in this table? The table references RORE 2016a, but not RORE 2016b. Please explain.	e. The RORE, Inc. (2016b) reference will be added to the table. All applicable information is already included.
13	Figure 2	Have COs II-C and II-D-1 been transferred?	No, not at the time of this response. However, transfer of these two COs is expected by 31 January 2017, so no changes to Figure 2 are currently necessary. Should these COs not be transferred by the time Final FOST #9 is signed, Figure 2 will be revised appropriately.
14	Figure 3	a. There is an existing building shown near PCB T122 that is not shown in Table 1. Please explain. b. There are two demolished buildings shown on the figure. One is labeled 553 and another, located just above UST T-1, is not labeled. Please provide a label.	a. This feature is the former concrete pad associated with former transformer PCB T122. It will be removed from Figure 3. b. Based on re-review of the <i>Summary Report, Petroleum Release at the MSC JP5 Building 556 Study Area</i> (DON 2009c), this feature may be a structure formerly associated with UST T-1 or it may represent UST T-1 itself, based on its location. The only labeled feature at this location is UST T-1. Therefore, the feature will be removed from Figure 3 and the UST T-1 orange square symbol will be moved over to replace it. Please also see DON-Initiated Correction #1 below regarding the correction of the location of UST T-1.
15	Figure 4	a. Please see Specific Comment #14a above. b. Why are the JP5 Pipelines shown on this figure, but not the Norwalk Pipeline? c. The "Earth Tech AECOM, March 2009" source is not consistent with the reference in Section 10.	a. Please see the response to DTSC Specific Comment #14a. b. The former Defense Fuel Support Point Norwalk pipeline will be added to Figure 4; please also refer to the response to DTSC Specific Comment #7. c. The source will be revised to state "Final Remedial Action Completion Report, Installation Restoration Program Sites 2 and 17; Earth Tech 2009a."
16	Attachment 5	a. APHO 101 – Based on the information provided for APHO 101 it might be more appropriate to change "Unknown" and "ND" to "Not applicable ^(d) ". Please consider and make changes if needed. b. There is a Residual Fuel Pipeline shown on Figure	a. The DON will remove APHO 101 entirely from Attachment 5 as all entries are "not applicable". As such, "ND" will be removed from the acronyms and abbreviations list. b. The residual fuel pipeline will be added to Attachment 5, indicating "Waste JP5" as

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Number	Reference	Comment	Response
		3. Why isn't it included here?	the petroleum product, "1988–2000" as the dates of operation, and "S" as the activities conducted at the site. Please also note that as explained the response to DTSC Specific Comment #5a, the "residual fuel pipeline" on Figure 3 will be renamed.
Comments received from Ms. Thelma Estrada, Counsel, U.S. Environmental Protection Agency, via e-mail forwarded by Ms. Mary T. Aycock, Superfund Remedial Project Manager, U.S. Environmental Protection Agency, on 12 October 2016.			
1	General	I reviewed FOST 9 and do not have any comments. I do concur with the comments made by DTSC (Jennifer Rich) which I think were exhaustive and excellent.	The DON appreciates the U.S. Environmental Protection Agency's comprehensive review of this document.

U.S. Department of the Navy (DON)–Initiated Corrections
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Number	Reference	Correction	Rationale
1	Figure 3	The locations of USTs T-1 , 553, and 554 will be corrected. The “residual fuel pipeline” will be renamed to “fuel pipeline to USTs 553 and 554 – closed in place”, and a footnote will be added indicating that the pipeline has also been referred to as the “residual” or “contaminated” fuel pipeline. In addition, the former concrete pad associated with former transformer PCB T122 and the unlabeled demolished building shown just above UST T-1 will be removed.	UST T-1 was used to store residual/waste JP5 spilled from truck loading operations and was located on the north side of the paved access road. Its depiction along the fence line was incorrect. USTs 553 and 554 were also incorrectly depicted as being located outside the fence line. The pipeline description is being changed to be consistent with the <i>Summary Report, Former Underground Storage Tank Sites 553 and 554</i> (DON 1997), but it will be noted that the <i>Summary Report, Petroleum Release at the MSC JP5 Building 556 Study Area</i> (DON 2009c) described it differently. It is not necessary to depict the former concrete pad associated with former transformer PCB T122. The unlabeled demolished building was never present.
2	Figure 3 and Section 10	The following reference will be added to the sources on Figure 3 and under the DON citations in Section 10: DON. 1998. <i>Site Assessment Report, Underground Storage Tanks 548 and 551, Marine Corps Air Station El Toro, California</i> . October.	This reference is needed pursuant to the response to DTSC General Comment #5.
3	Section 10	The existing DON (2005) reference will be relabeled DON (2005a) in this section and where applicable elsewhere in the document. In addition, a new DON (2005b) reference will be added for the <i>Lease in Furtherance of Conveyance between the United States of America and Heritage Fields LLC, a Delaware Limited Liability Company, for MCAS El Toro Parcel 2</i> . July 12.	These changes are necessary to accommodate the new citation of the <i>Lease in Furtherance of Conveyance</i> (DON 2005b) pursuant to the response to DTSC Specific Comment #1.
4	Section 10	A formal reference to the <i>Final Addendum to the RCRA Facility Assessment, MCAS El Toro, California</i> (Bechtel National, Inc., May 1996) will be added.	This reference is needed pursuant to the response to DTSC Specific Comment #2.
5	Section 10	Formal references to the DTSC, U.S. EPA, and RWQCB concurrences on the (Draft and/or) <i>Final Explanation of Significant Differences, Operable Unit 2B, Installation Restoration Program Sites 2 and 17 Buffer Zone Reduction, Former Marine Corps Air Station El Toro, California</i> (DON 2011a) will be added.	These references are needed pursuant to the response to DTSC Specific Comment #8.
6	Figure 4	The former Defense Fuel Support Point Norwalk pipeline will be added to this figure.	This feature needs to be added pursuant to the response to DTSC Specific Comment #7.

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Number	Reference	Correction	Rationale
7	Attachment 5	The entry for APHO 101 and the abbreviation for/definition of “ND” will be deleted. The residual fuel pipeline will be added, indicating “Waste JP5” as the petroleum product, “1988–2000” as the dates of operation, and “S” as the activities conducted at the site.	Pursuant to the response to DTSC Specific Comment #16b, because all entries for APHO 101 would be “not applicable,” there is no need to include it. Also, there is no longer a need for the abbreviation for/definition of “ND”.

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Responses to Additional Comments
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Number	Reference	Comment	Response
Comment received from Ms. Patricia Hannon, PG, Engineering Geologist, California Regional Water Quality Control Board, Santa Ana Region (RWQCB) via email on 21 November 2016			
1	General	RWQCB-8 accepts the responses to their comments on the Draft FOST #9 and do not have any further comments.	The U.S. Department of the Navy (DON) appreciates RWQCB's comprehensive review of and concurrence with this document.
Comment received from Ms. Jennifer Rich, Environmental Scientist, California Department of Toxic Substances Control, via email dated 4 January 2017			
1	Table 1	I only have one suggestion as follows: Page 9 of 15 (Navy's response to DTSC Specific Comment #9) – It says "Please refer to the response to DTSC Specific Comment #5 that states that the former Defense Fuel Support Point Norwalk pipeline was not an asset of MCAS El Toro. It is not included in Table 1 for this reason." I suggest adding a footnote to Table 1 regarding the DFSP Norwalk pipeline since it was a "structure/feature" located/associated with Carve-Out II-F-3 (see Draft FOST #9, page 1, Section 2, Property Description).	Agreed. The following text has been added to Table 1 as footnote (a) and the previously existing footnotes have been reordered accordingly: <i>The closed Defense Fuel Support Point Norwalk pipeline was not an asset of MCAS El Toro and is not listed for this reason.</i>
Comment received from Ms. Mary Aycock, Superfund Remedial Project Manager, U.S. Environmental Protection Agency (EPA), via email dated 11 January 2017			
1	General	Thanks for the update! (This comment was made in response to a 5 January 2017 email from Mr. Guy Chammas, DON Remedial Project Manager, to the Base Realignment and Closure Cleanup Team, which stated: "As the Navy did not receive any objections to proceeding directly to final on FOST #9 for Former MCAS El Toro or any further input from EPA on the responses to comments on the draft, our plan is to issue the final document before the end of the month. Thank you.")	The DON appreciates EPA's concurrence on issuing the final version of FOST #9.

U.S. Department of the Navy (DON)–Initiated Corrections/Clarifications
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Number	Reference	Correction/Clarification	Rationale
1	Table 3, UST 547, Notes	The notes for were edited and reorganized.	As the text changes prescribed in the DON's responses to RWQCB Comments #1 and 3 and DTSC Specific Comment #10 were somewhat redundant and final groundwater closure for former Tank Farm 555 was obtained since those responses were issued, the text was streamlined for clarity and accuracy.
2	Section 2, Second Paragraph, Last Sentence	"Northeast" was changed to "northern" and a comma was removed from the DON 2009c reference.	Some of the features listed are actually in the northwestern section of former Tank Farm 555 so the use of the more general term "northern" is more appropriate. The comma was removed from the reference for consistency with the style of other references in the document.
3	Section 3, Second Paragraph, Last Two Sentences	Minor edits were made to the text.	The text had indicated that regulatory comments and unresolved comments will be provided in Attachments 1 and 2. Since this is a final version of FOST #9 containing those attachments, the verb tense needed to be changed to the present, references to the final version needed to be removed, and because there was only one unresolved comment, the title of Attachment 2 was singularized (this same change was made in the table of contents and Attachment 2 fly sheet).
4	Section 3.1, Last Paragraph, Last Sentence	Minor edits were made to the text.	The text had indicated that regulatory agency correspondence will be provided in Attachment 3 of the final version of FOST #9. Since this is a final version containing that attachment, the verb tense needed to be changed to the present and reference to the final version needed to be eliminated.
5	Section 4, Last Paragraph, Second Sentence	The first instance of "with" was changed to "within".	This typographical error needed to be corrected to indicate that the 11 LOCs are within CO II-F-3.
6	Section 4.2.1, Second Paragraph, Last Sentence	Minor edits were made to the text.	The text had indicated that formal groundwater closure is expected to be provided before FOST #9 is finalized. Since this is the final version and formal groundwater closure has been obtained, the verb tense needed to be changed to the past and a reference to the closure documentation needed to be added.
7	Section 5.2, First Paragraph	Minor edits were made to the text.	Since formal groundwater closure has been obtained, the text needed to be updated and a reference to the closure documentation needed to be added.
8	Section 10	Several references were modified and/or added.	Based on the DON's responses to DTSC Specific Comments #1, 2, and 8b and self-initiated DON Corrections #2–5 dated November 18, 2016, several references needed to be added or modified.

ATTACHMENT 2

Unresolved Comment

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Attachment 2: Unresolved Comment

Document Title: Draft Finding of Suitability to Transfer #9 for Carve-Out II-F-3, Former Marine Corps Air Station El Toro, Irvine, California, dated 26 July 2016.

Reviewer: Jennifer Rich, Environmental Scientist, Brownfields and Environmental Restoration Program, California Department of Toxic Substances Control (DTSC), letter dated 6 October 2016.

Number	Reference	Comment	Response
1	Section 4.0 and Table 2	<p>Please provide the following notification in Section 4.0 and Table 2:</p> <p>SCHOOL SITE CONSIDERATIONS</p> <p>If, subsequent to transfer, any portions of the property found suitable to transfer by this FOST is considered for the proposed acquisition and/or construction of school properties utilizing state funding, a separate environmental review process in compliance with the California Education Code section 17210 et seq. will need to be conducted by the transferee and approved by DTSC (Brownfields and Environmental Restoration Program). The California Education Code requires that a comprehensive evaluation of natural and manmade hazardous materials be conducted for school properties. This comprehensive evaluation requires additional investigation of hazardous materials outside the scope of CERCLA hazardous substances. This additional evaluation includes: legally applied pesticides and herbicides, imported fill materials, naturally occurring hazardous substances such as heavy metals (e.g., chromium, mercury, nickel), metalloids (e.g., arsenic, selenium), gases (e.g., methane, hydrogen sulfide), radioactive elements (e.g., radon gas), naturally occurring petroleum deposits, and naturally occurring asbestos. The evaluation also includes asbestos containing material and lead based paint at concentrations that fall outside the scope of CERCLA. Any requirements associated with the evaluation of any property for compliance with the California Education Code are the sole responsibility of the transferee.</p>	<p>As was the case for Findings of Suitability to Transfer (FOSTs) #6, #7, and #8, FOST #9 was prepared in accordance with the United States Department of Defense's <i>Base Redevelopment and Realignment Manual</i> (1 March 2006), which does not require "school site considerations" to be included. No changes have been made to the text or to Table 2 in response to this comment.</p>

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ATTACHMENT 3

Agency Concurrence

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From: Rich, Jennifer@DTSC [mailto:Jennifer.Rich@dtsc.ca.gov]
Sent: Wednesday, January 04, 2017 4:41 PM
To: Chammas, Guy A CIV
Cc: Smits, Marc P CIV NAVFAC HQ, BRAC PMO; Arnold, Content P CIV; Aycock, Mary (Aycock.Mary@epa.gov); Hannon, Patricia@waterboards; Estrada, Thelma (Estrada.Thelma@epa.gov);
Giorgi, Erika@DTSC; [REDACTED]; Mananian, Eileen@DTSC
Subject: [Non-DoD Source] RE: FOR REVIEW: Navy Responses to Comments on Draft FOST #9 for Former
MCAS El Toro

Guy,

Thank you for providing responses to our comments on the Draft FOST #9. I appreciate the thorough job you did. Once I finally got a chance to look through the package you sent out, it was easy to conduct my review. I only have one suggestion as follows:

Page 9 of 15 (Navy's response to DTSC Specific Comment #9) - It says "Please refer to the response to DTSC Specific Comment #5 that states that the former Defense Fuel Support Point Norwalk pipeline was not an asset of MCAS El Toro. It is not included in Table 1 for this reason." I suggest adding a footnote to Table 1 regarding the DFSP Norwalk pipeline since it was a "structure/feature" located/associated with Carve-Out II-F-3 (see Draft FOST #9, page 1, Section 2, Property Description).

Sincerely,

Jennifer Rich
Environmental Scientist
Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
5796 Corporate Avenue
Cypress, CA 90630

Cypress Desk Phone: 714.484.5415
Cell Phone: 714.392.2995
jennifer.rich@dtsc.ca.gov

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EPA concurrence

From: Aycock, Mary [mailto:Aycock.Mary@epa.gov]
Sent: Wednesday, October 12, 2016 2:14 PM
To: Chammas, Guy A CIV
Cc: Smits, Marc P CIV NAVFAC HQ, BRAC PMO; Jennifer.Rich@dtsc.ca.gov;
Patricia.Hannon@waterboards.ca.gov
Subject: [Non-DoD Source] Fwd: El Toro, FOST 9: Approved

Please see attached! MTA

Sent from my iPhone

Begin forwarded message:

From: "Estrada, Thelma" <Estrada.Thelma@epa.gov>
Date: October 12, 2016 at 11:14:12 AM PDT
To: "Aycock, Mary" <Aycock.Mary@epa.gov>
Subject: El Toro, FOST 9

I reviewed FOST 9 and do not have any comments. I do concur with the comments made by DTSC (Jennifer Rich) which I think were exhaustive and excellent.

Thelma

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From: Aycock, Mary <Aycock.Mary@epa.gov>
Sent: Wednesday, January 11, 2017 2:52 PM
To: Chammas, Guy A CIV
Cc: Rich, Jennifer@DTSC; Hannon, Patricia@Waterboards; Smits, Marc P CIV NAVFAC HQ, BRAC PMO; Arnold, Content P CIV; Estrada, Thelma; Giorgi, Erika@DTSC; [REDACTED]; Mananian, Eileen@DTSC; Thurman Heironimus; Blanchard, Stephen
Subject: [Non-DoD Source] Re: Finalization of FOST #9 for Former MCAS El Toro

Thanks for the update! MTA

Sent from my iPhone

> On Jan 11, 2017, at 2:06 PM, Chammas, Guy A CIV <guy.chammas@navy.mil> wrote:
>
> Fellow BCT Members:
> As the Navy did not receive any objections to proceeding directly to final on FOST #9 for Former MCAS El Toro or any further input from EPA on the responses to comments on the draft, our plan is to issue the final document before the end of the month. Thank you.
>
> -----Original Message-----
> From: Chammas, Guy A CIV
> Sent: Thursday, January 05, 2017 10:58 AM
> To: 'Rich, Jennifer@DTSC'
> Cc: Smits, Marc P CIV NAVFAC HQ, BRAC PMO; Arnold, Content P CIV;
> Aycock, Mary (Aycock.Mary@epa.gov); Hannon, Patricia@Waterboards;
> Estrada, Thelma (Estrada.Thelma@epa.gov); Giorgi, Erika@DTSC;
> [REDACTED]; Mananian, Eileen@DTSC
> Subject: RE: FOR REVIEW: Navy Responses to Comments on Draft FOST #9
> for Former MCAS El Toro
>
> Thanks Jennifer, we will implement your suggestion.
>
> Mary, Thelma: EPA had no comments on the draft FOST. Do you have anything further on the RTCs? If not, the Navy plans to skip the draft final stage and go straight to final.
>
> BCT members: Please let me know if you have any issues with this plan to go straight to final. Otherwise, if EPA has nothing further (or only minor comments), the Navy will publish the final, including all the regulatory correspondence and RTCs.
>
> -----Original Message-----
> From: Rich, Jennifer@DTSC [mailto:Jennifer.Rich@dtsc.ca.gov]
> Sent: Wednesday, January 04, 2017 4:41 PM
> To: Chammas, Guy A CIV
> Cc: Smits, Marc P CIV NAVFAC HQ, BRAC PMO; Arnold, Content P CIV;
> Aycock, Mary (Aycock.Mary@epa.gov); Hannon, Patricia@Waterboards;
> Estrada, Thelma (Estrada.Thelma@epa.gov); Giorgi, Erika@DTSC;
> [REDACTED]; Mananian, Eileen@DTSC

> Subject: [Non-DoD Source] RE: FOR REVIEW: Navy Responses to Comments
> on Draft FOST #9 for Former MCAS El Toro
>
> Guy,
>
> Thank you for providing responses to our comments on the Draft FOST #9. I appreciate the thorough job you did. Once I finally got a chance to look through the package you sent out, it was easy to conduct my review. I only have one suggestion as follows:
>
> Page 9 of 15 (Navy's response to DTSC Specific Comment #9) - It says "Please refer to the response to DTSC Specific Comment #5 that states that the former Defense Fuel Support Point Norwalk pipeline was not an asset of MCAS El Toro. It is not included in Table 1 for this reason." I suggest adding a footnote to Table 1 regarding the DFSP Norwalk pipeline since it was a "structure/feature" located/associated with Carve-Out II-F-3 (see Draft FOST #9, page 1, Section 2, Property Description).
>
> Sincerely,
>
> Jennifer Rich
> Environmental Scientist
> Department of Toxic Substances Control Brownfields and Environmental
> Restoration Program
> 5796 Corporate Avenue
> Cypress, CA 90630
>
> Cypress Desk Phone: 714.484.5415
> Cell Phone: 714.392.2995
> jennifer.rich@dtsc.ca.gov
>
>
> -----Original Message-----
> From: Chammas, Guy A CIV [mailto:guy.chammas@navy.mil]
> Sent: Friday, November 18, 2016 12:44 PM
> To: Aycock, Mary <Aycock.Mary@epa.gov>; Rich, Jennifer@DTSC
> <Jennifer.Rich@dtsc.ca.gov>; Hannon, Patricia@Waterboards
> <Patricia.Hannon@waterboards.ca.gov>
> Cc: Smits, Marc P CIV NAVFAC HQ, BRAC PMO <marc.smits@navy.mil>;
> [REDACTED]; Jim Werkmeister <jim.werkmeister@fivepoint.com>;
> 'pcarmichael@cityofirvine.org' <pcarmichael@cityofirvine.org>; Giorgi,
> Erika@DTSC <Erika.Giorgi@dtsc.ca.gov>; Estrada, Thelma
> <Estrada.Thelma@epa.gov>; Thurman Heironimus <theironimus@kmea.net>;
> Blanchard, Stephen <stephen.blanchard@amecfw.com>; Tencate, Michael D
> CIV NAVFAC SW <michael.tencate@navy.mil>; Arnold, Content P CIV
> <content.arnold@navy.mil>; Macchiarella, Thomas L JR CIV NAVFAC HQ,
> BRAC PMO <thomas.macchiarella@navy.mil>; Anderson, Scott D CIV NAVFAC
> HQ, BRAC PMO <scott.d.anderson@navy.mil>; Hill, Amy J CIV NAVFAC HQ,
> BRAC PMO <amy.hill@navy.mil>
> Subject: FOR REVIEW: Navy Responses to Comments on Draft FOST #9 for
> Former MCAS El Toro
>
> Fellow Federal Facility Agreement Representatives:
>

> Attached for your review and concurrence (or additional comments, if any) are the U.S. Department of the Navy's responses to comments received on the Draft Finding of Suitability to Transfer #9 for Carve-Out II-F-3, Former Marine Corps Air Station El Toro, Irvine, California, dated 26 July 2016. Please provide feedback by Friday, 2 December 2016, so we can keep this document on schedule for a finalization date of 31 January 2017. Thank you.

>

> Guy Chammas, MS, PG, CPSS

> Remedial Project Manager

> Former Marine Corps Air Stations El Toro and Tustin U.S. Department of

> the Navy Base Realignment and Closure Program Management Office West

> 33000 Nixie Way, Building 50

> San Diego, CA 92147-5101

> 619.524.5922

> guy.chammas@navy.mil

>

>

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RWQCB Concurrence

From: Hannon, Patricia@waterboards
<Patricia.Hannon@waterboards.ca.gov>
Sent: Monday, November 21, 2016 9:37 AM
To: 'Chammas, Guy A CIV'; Aycok, Mary; Rich, Jennifer@DTSC
Cc: Smits, Marc P CIV NAVFAC HQ, BRAC PMO; [REDACTED];
Jim Werkmeister; 'pcarmichael@cityofirvine.org'; Giorgi,
Erika@DTSC; Estrada, Thelma; Thurman Heironimus; Blanchard,
Stephen; Tencate, Michael D CIV NAVFAC SW; Arnold, Content P
CIV; Macchiarella, Thomas L JR CIV NAVFAC HQ, BRAC PMO;
Anderson, Scott D CIV NAVFAC HQ, BRAC PMO; Hill, Amy J CIV
NAVFAC HQ, BRAC PMO
Subject: RE: FOR REVIEW: Navy Responses to Comments on Draft FOST #9
for Former MCAS El Toro

RWQCB-8 accepts the responses to their comments on the Draft FOST #9 and do not have any further comments.

Patricia Hannon, PG
Engineering Geologist
Land Disposal and DoD Section
California Regional Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside CA 92501-3348
Direct: (951) 782-4498
Reception desk: (951) 782-4130
patricia.hannon@waterboards.ca.gov
website: www.waterboards.ca.gov/santaana

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ATTACHMENT 4
Hazardous Substances Notification Table
for Carve-Out II-F-3

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Attachment 4: Hazardous Substances Notification Table for Carve-Out II-F-3

Building/ Structure Number	Area Type ID	Hazardous Substances ^(a,b)	Reportable Quantity (lb/year)	CAS Number	RCRA Waste Code	Dates of Operation	Activities Conducted at Site	Remedial Action Taken
UST 547	Non-Trans 547 (PCB 547)	PCBs	N/A	N/A	N/A	Unknown– 1999	ND	A non-transformer PCB item with less than 7 parts per million PCBs was associated with the former tank vault structure at UST 547. NFA was received by the regulatory agencies (DTSC 2003; U.S. EPA 2003).
555	PCB T122	PCBs	N/A	N/A	N/A	Unknown– 1998	S	Transformer PCB T122 was replaced with a non-PCB-containing transformer, and no evidence of a release has been identified at this transformer location (DTSC 2003; U.S. EPA 2003).

Notes:

- (a) This table was prepared in accordance with 40 Code of Federal Regulations (CFR) §§ 373.3 and 302.4. The information contained in this notice is required under the authority of regulations promulgated under CERCLA § 120(h), 42 U.S.C. § 9620(h). The substances that do not have chemical-specific identifications (and associated annual reportable quantities) are not listed in 40 CFR § 302.4 and therefore have no corresponding CAS numbers, no regulatory synonyms, no RCRA waste numbers, and no reportable quantities.
- (b) The property may contain pesticide residue from pesticides that have been applied in the management of the property. The Grantor knows of no use of any registered pesticide in a manner inconsistent with its labeling and believes that all applications were made in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 136, et seq.), its implementing regulations, and according to the labeling provided with such substances. It is the Grantor's position that it shall have no obligation under the covenants provided pursuant to CERCLA § 120(h)(3)(A)(ii), 42 U.S.C. § 9620(h)(3)(A)(ii), for the remediation of legally applied pesticides.

Sources: DTSC (2003), Earth Tech, Inc. (2003), RWQCB (2003), U.S. EPA (2003)

Acronyms and Abbreviations:

AA	=	Anomaly Area
APHO	=	aerial photograph feature/anomaly
CAS	=	Chemical Abstracts Service
CERCLA	=	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	=	Code of Federal Regulations
CO	=	Carve-Out
D	=	disposal of wastes
DTSC	=	California Environmental Protection Agency/Department of Toxic Substances Control
IC	=	institutional control

ID = identification
lb = pound
MCAS = Marine Corps Air Station
N/A = not applicable
ND = operations at site are not determined
NFA = no further action
PCB = polychlorinated biphenyl
RCRA = Resource Conservation and Recovery Act
ROD = Record of Decision
RWQCB = California Regional Water Quality Control Board, Santa Ana Region
S = storage of hazardous material or waste
U.S.C. = *United States Code*
U.S. EPA = United States Environmental Protection Agency

ATTACHMENT 5
Petroleum Products Notification Table
for Carve-Out II-F-3

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Attachment 5: Petroleum Products Notification Table for Carve Out II-F-3

Area Type ID	Petroleum Product ^(a)	Dates of Operation	Activities Conducted at Site
UST 547	JP5 ^(b)	1953–1998	S
UST 548	JP5 ^(b)	1953–1998	S
UST 549	JP5 ^(b)	1953–1998	S
UST 550	JP5 ^(b)	1953–1998	S
UST 551	JP5 ^(b)	1953–1998	S
UST 553	Gasoline	1956–1993	S
UST 554	Kerosene	1956–1993	S
UST T-1	Waste JP5	1988–2000	S
MSC JP5 (pipeline; Quarry Road segment)	JP5	1950s–1998	S
Norwalk Pipeline	JP5	1956–1998 ^(c)	S
Residual Fuel Pipeline	Waste JP5	1988–2000	S

Notes:

(a) Includes only petroleum products that fall within the scope of the CERCLA petroleum exclusion set forth in CERCLA § 101(14).

(b) The USTs originally stored JP4 (RORE 2016a)

(c) Assumed end of operation date based on the end of operation dates of the USTs supplied by the pipeline. The Norwalk Pipeline was closed in 1999.

Sources: Earth Tech, Inc. (2003); DON (2005, 2009c, 2010); RORE, Inc. (2016a); Groundwater Technology, Inc. (2003)**Acronyms and Abbreviations:**

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
 DON = U.S. Department of the Navy
 ID = identification
 JP4 = jet propulsion fuel, grade 4
 JP5 = jet propulsion fuel, grade 5
 MCAS = Marine Corps Air Station
 MSC = miscellaneous
 S = storage of petroleum product
 UST = underground storage tank
 § = Section

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